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PSYCHOLOGY AND SCIENTIFIC METHODS

PROFESSOR DEWEY'S "ESSAYS IN EXPERIMENTAL LOGIC"

IN reading this collection of essays, I have been conscious of a much greater measure of agreement than the author would consider justifiable on my part. In particular, in passages dealing with my own views, I have often found that the only thing I disagreed with was the opinion that what was said constituted a criticism of me. There seems to me quite clearly to be, in Professor Dewey's outlook, a misunderstanding of some, at least, of the "analytic realists." I shall try, in what follows, chiefly to remove this misunderstanding. Philosophical writing, as a rule, is to my mind far too eristic. There are various classes of difficulties to be dealt with in philosophy, each fairly easy to solve if it stood alone. Each philosopher invents a solution applicable to his own problems, and refuses to recognize those of others. He sees that the theories of others do not solve his problems, but he refuses to see that his theories do not solve the problems of others. I do not wish to offer merely another example of this kind of blindness, since I consider that it constitutes a most serious obstacle to the progress of philosophy. In return, I would beg Professor Dewey to believe that certain questions which interest me can not be solved unless his doctrines are supplemented by theories brought from a region into which, as yet, he has not thought it necessary to penetrate.

A misunderstanding, as between him and those who hold views more akin to mine, is likely to arise through different use of terms. What he calls "logic" does not seem to me to be part of logic at all; I should call it part of psychology. He takes the view—for which there is much better authority than for mine—that logic is concerned with thought. The ways in which we become possessed of what we call "knowledge" are, for him, questions of "logic." His book is said to consist of studies in experimental "logic." Now in the sense in which I use the word, there is hardly any "logic" in the book except the suggestion that judgments of practice yield a special form—a suggestion which belongs to logic in my sense, though I do

not accept it as a valid one. A great deal of his criticism of my views on the external world rests, I think, upon this difference of terminology. He insists that what I call data are logical, not psychological, data, and in his sense of these words I entirely agree. I never intended them to be regarded as data which would be psychological in his sense. The subject which I call "logic" is one which apparently does not seem to Professor Dewey a very important one. No doubt he feels that I attach too little importance to matters which he regards as vital. This differing estimate of relative importance is, I think, the main source of differences between him and me. I hope that, if both recognize this, the differences may come to be greatly diminished. It is in this hope, and not in a spirit of controversy, that the following pages are written.

I. LOGICAL AND PSYCHOLOGICAL DATA

I will try first of all to set forth what I conceive to be the most important features, from my point of view, in Professor Dewey's doctrine as regards data. To a great extent I am in agreement with his doctrine; but I shall leave the critical consideration of it until I have endeavored to state it. Let us begin with some quotations.

1. "That fruitful thinking—thought that terminates in valid knowledge—goes on in terms of the distinction of facts and judgment, and that valid knowledge is precisely genuine correspondence or agreement, of some sort, of fact and judgment, is the common and undeniable assumption" (p. 231).

2. "A functional logic . . . has never for a moment denied the *prima facie* working distinction between 'ideas,' 'thoughts,' 'meanings,' and 'facts,' 'existences,' 'the environment,' nor the necessity of a control of meaning by facts" (p. 236).

3. "The position taken in the essays is frankly realistic in acknowledging that certain brute existences, detected or laid bare by thinking but in no way constituted out of thought or any mental process, set every problem for reflection and hence serve to test its otherwise merely speculative results" (p. 35).

4. *Perceptions* are not themselves cases of knowledge, but they are the source of all our knowledge of the world: "They are the sole ultimate data, the sole media, of inference to all natural objects and processes. While we do not, in any intelligible or verifiable sense, know *them*, we know all things that we do know *with* or *by* them. They furnish the only ultimate evidence of the existence and nature of the objects which we infer, and they are the sole ultimate checks and tests of the inferences. Because of this characteristic use of perceptions, the perceptions themselves acquire, by 'second intention,' a knowledge status. They *become* objects of minute, accurate, and experimental scrutiny" (pp. 259-260).

5. But this cognitive function of perceptions is derivative. It is a "superstition" that "sensations-perceptions are cases of knowledge. . . . Let them [the realists] try the experiment of conceiving perceptions as pure natural events, not as cases of awareness or apprehension, and they will be surprised to see how little they miss" (p. 262).

6. "To find out *what* is given is an inquiry which taxes reflection to the uttermost. Every important advance in scientific methods means better agencies, more skilled technique for simply detaching and describing what is barely there, or given" (p. 152).

7. "According to Mr. James, for example, the original datum is large but confused, and specific sensible qualities represent the result of discriminations. In this case, the elementary data, instead of being primitive empirical data, are the last terms, the limits, of the discriminations we have been able to make" (pp. 298-299).

These quotations may serve for the moment to illustrate Professor Dewey's doctrine as regards data.

The first three raise no point of controversy as between him and me. The sixth and seventh, though I believe he would regard them as affording an argument against some of my views, certainly do not say anything that I disagree with, except in so far as there is an ambiguity in the second sentence of the seventh: "primitive empirical data" may mean primitive in time, or primitive in logic. The logical articulation of a man's knowledge changes as his knowledge increases; at every stage, there will be parts of his knowledge that are logically more primitive and parts that are logically less so. What, at an advanced stage of knowledge, is primitive in logic, may be very far from primitive in time. The last terms in our discriminations are very likely to become *logically* primitive in our knowledge very soon after we have reached them. But if Professor Dewey means "primitive in time," there is no matter of disagreement between us so far.

The different senses in which things may be "data" need to be considered somewhat more fully, if misunderstandings are to be removed. When I speak of "data," more particularly of "hard data," I am not thinking of those objects which constitute data to children or monkeys: I am thinking of the objects which seem data to a trained scientific observer. It is quite consciously and deliberately, not by mistake, that I am thinking of the trained observer. The kind of "datum" I have in mind is the kind which constitutes the outcome of an experiment, say in physics. We have reason to expect *this* or *that*; *this* happens. Then *this* is what I call datum. The fact that *this* has happened is a premiss in the reasoning of the man of science; it is not deduced, but simply observed. The state of mind that I am imagining in investigating the problem of the physical world is not a naïve state of mind, but one of Cartesian doubt.

The confusion between the two kinds of primitiveness¹ is not

¹ When Professor Dewey speaks (p. 406) of "Russell's trusting confidence in 'atomic' propositions as psychological primitives," he is imagining that I mean one sort of primitiveness when in fact I mean another. I mean what would be a premiss to a careful man of science, not what is a premiss to a baby or a gorilla.

always easy to avoid. In those whose knowledge has not reached a high level of logical articulation, there will be comparatively little that is logically derivative. The habit of reasoning and inferring and binding together different pieces of knowledge into a single logical system increases the proportion of logically derivative knowledge, and the deductive weight that has to be supported by what remains logically primitive. One thing that makes the problem exceedingly confusing is that even what we are calling the *logical* articulation of a man's knowledge is still a question of psychology, in part at least. If a man believes two propositions p and q , and if p implies q though he has never noticed this fact, then p and q are separate pieces of his knowledge, though not separate in abstract logic. The logical articulation of a man's knowledge is subject to restrictions imposed by logic, since we shall not regard one part of his knowledge as logically derivative in relation to another unless it is logically inferable, as well as psychologically inferred by him; but although logic thus enters in as controlling the possible articulations of a man's knowledge, logic alone can not determine them, and his individual psychology is required in addition in order to fix the actual logical order among his beliefs.

We have thus three different problems, one of pure psychology, one of mixed psychology and logic, and one of pure logic. We may illustrate the three problems by means of the science of physics.

1. The problem of pure psychology is this: How do we, as a matter of history, come by the beliefs we have about material objects? What earlier beliefs preceded those which we now entertain, either in the individual or in the race? What vaguer state than "belief" precedes the growth of even the earliest beliefs? And what vaguer objects than those presented to a trained observation are to be found in a less sophisticated experience? All these are questions of psychology. They are questions which I, for my part, have not attempted to discuss. Nothing that I have said on the problem of the external world is intended to be applicable to them.

2. The problem of mixed psychology and logic is this: How do we, ordinary persons with a working knowledge of physics, organize our physical beliefs from a logical point of view? What, if we are challenged, and an attempt is made to make us doubt the truth of physics, shall we fall back upon as giving a basis for our belief which we are not prepared to abandon? Take, say, the facts out of which modern physics grew: Galileo's observations on falling bodies. We have in Galileo's work a mixture of argument, inference, mathematics, with something else which is not argued or inferred, but observed. For him, this something else constituted part of what was logically primitive. To those who are troubled by skepticism, the

discovery of what is logically primitive in their own beliefs (or half-beliefs) appears important as a possible help in deciding as to their truth or falsehood. We will call the primitive in this sense the "epistemological primitive." It is the primitive in this sense that I mean when I speak of "data." I agree entirely with Professor Dewey when he says (p. 428): "To make sure that a given fact is just and such a shade of red is, one may say, a final triumph of scientific method;" but when he goes on to say: "To turn, around and treat it as something naturally or psychologically given is a monstrous superstition," we shall no longer agree if we are speaking of "data" in the sense of "epistemological primitives" rather than temporal primitives.

3. In addition to these, there is, or may be, a third kind of primitive, namely, the *pure* logical primitive. This, when it can be defined, can only be defined by logical simplicity or deductive power. A deductive system is preferable when its premisses are few and simple than when they are many and complicated, but this seems to be mainly an esthetic question. There is, however, something beyond this in logical simplicity. The law of gravitation, for example, implies Kepler's three laws, and much besides; in this sense, as a premiss, it is logically preferable to them. Although, often, in a deductive system, there will be a certain element of arbitrariness in the choice of premisses, yet the arbitrariness is restricted: there will be, usually, a fairly small collection of propositions from among which it is clear that the logical premisses should be chosen. And the more advanced the logical organization of the system, the more restricted will be the choice of premisses. But this sense of "primitive" does not enter into inquiries of which the purpose is to find out whether the grounds for believing some body of scientific propositions are sufficient. In such inquiries, it is the second sense of "primitive," the epistemological sense, that is important. The pure psychological and the pure logical are alike irrelevant. And it is in the second sense that I speak of "data" in discussing the problem of the external world. As an example of the search for the logical primitive in physics, we may take Herz's *Principien der Mechanik*. In this book the author is not concerned to persuade us that physics is true, but to find the best way of stating premisses from which physics (supposed known) can be deduced.

There is a problem as regards the comparative merit of the differing psychological data at various levels. The common-sense view is that greater discrimination and more analytic observation yield more knowledge. It is supposed that we know more about an object which we have inspected closely, with attention to parts and differentiation, than about an object of which we have only

what is called a "general impression." The successes of science, whose observation of facts is highly analytic, have confirmed the view that observation of this sort yields the most information. But as against this common-sense view we have a sort of artificially archaistic view, which opposes analysis, believes in a faculty of "intuition" possessed by peasant women, dogs, and ichneumon wasps, loves savage religions, and maintains that the progress of intellect has driven wisdom away from almost all men except the few immovable philosophers among whom intellect has not progressed. Those who adopt this artificially archaistic view believe that the large confused data spoken of by James (in the seventh of our above quotations) have more capacity for revealing truth than is to be found in scientific observations. I do not think that Professor Dewey belongs to those who take this view. Accordingly he does not regard the vaguer data as giving more knowledge than those that are more analyzed. But there are aspects of his theories which might mistakenly suggest that he took this view.

I do not wish, at the moment, to consider Professor Dewey's views so much as to consider the problem in itself. The problem concerned is what we may call the problem of "vagueness." It may be illustrated by what occurs while we watch a man walking towards us on a long straight road. At first we see only a vague dot; we can not tell whether it is moving; we only guess that it is a human being because it seems about the right size. Gradually it passes through various grades of growing distinctness: we recognize it as so-and-so, and at last we see what sort of expression he has on his face, and whether he looks well or ill. In this case, it is clear that the more analyzed apprehension enables us to know more. We can more or less infer what a man would look like a long way off when we see him near at hand; but the converse inference is much more circumscribed. Now although, in the case of the man approaching along a road, our attention remains throughout equally analytic in character, and the changes that occur are due merely to the fact that the object comes nearer, yet I think that there is a close analogy between the quick changes in this case and the slow changes in the case of increasing powers of analytic attention. In these changes also, I think, what happens is that more differentiations exist in the new datum, and that the new datum allows more inferences than the old one. At the same time, as in the case of the man approaching, what (to save trouble) we may call the same physical object gradually comes to occupy a larger portion of the field of attention, so that, although more is known about an object which remains within the field of attention, there are fewer such objects at any one time. A man who is reading sees differences on the

printed page which are probably more minute than any that a dog ever sees, but while he is seeing them he may miss other things which the dog would never miss, for instance a person speaking to him. There seems no reason to reject the common-sense view that, through trained attention, we acquire more knowledge about the things we attend to, but become more restricted as regards the area of attention.

Following the analogy of the man on the road, whom I will now suppose seen simultaneously by a number of people at different distances, I suggest that it is possible, theoretically at least, to distinguish elements, in the perceptions of all these people, which are correlated and may be called perceptions "of" the one man. For the moment I do not wish to go into the meaning of this "of"; it is enough that these elements are correlated in the way that leads to their being said to be "of" one object. It is not necessary that the element which is a perception of the man in question should be consciously isolated and attended to by the person who has it: it is enough that it occurs, regardless of whether anybody knows that it does. (But of course the hypothesis that it sometimes occurs without anybody's knowing is based upon what is known.) Now among the correlated occurrences which we call perceptions of the one man, some allow more inference as to the others and some less. Those that allow less we will define as "vaguer;" those that allow more, as "less vague." Those that are less vague are more differentiated: they consist of more parts. In a very vague perception of the man, he is an undifferentiated dot. In a still vaguer perception, the whole man may be absorbed into the smallest discriminated element: we may see a distant regiment as a speck, without being able to distinguish its component men. In all this, I am accepting common sense. It may be necessary to abandon common sense on some points, but in all that concerns vagueness what I wish to maintain is in the closest agreement with common sense.

We may lay down the following common-sense propositions. (1) All that we learn through the senses is more or less vague. (2) What we learn by careful analytic attention of the scientific kind is less vague than what we learn by causal untrained attention; what we learn by seeing things close at hand is less vague than what we learn by seeing them at a distance. (3) Even the vaguest perception has *some* value for purposes of inference, but the vaguer it is the smaller becomes its value for inference. From these characteristics we may advance to those implied in the above definition of vagueness. The inferences drawn from what we perceive (or the

expectations aroused) are motivated by habitual correlations.² And the correlations of this sort (*e. g.*, those between what are called appearances of a given object at different distances) are many-one correlations: many different appearances near-to will all correspond to the same appearance further off. Wherever we have a many-one correlation, the "one" can be inferred from any of the "many," but not vice versa; we have the "one" determined by any of the "many" but not any of the "many" by the "one." It seems to me that the vague data of unanalytic attention are just as "true" as the more precise data of trained observation, but allow fewer inferences. We might illustrate the matter by an analogy. If you are told that a man is descended from Adam, that gives you the vaguest possible information as to his ancestry; if you are told that he is descended from William the Conqueror, that is still pretty vague; but as the generations grow later, the information that a man is descended from so-and-so becomes more and more significant. The reason is that the relation of son to father is many-one: when you are told that *B* is a son of *A*, and *Z* is descended from *B*, you can infer that *Z* is descended from *A*; but when you are told that *Z* is descended from *A*, you can not infer that he is descended from *B*, because he may be descended from one of *A*'s other children. So it is with correlated perceptions: the vaguer correspond to the earlier generations and the more precise to the later. But of course in the case of perceptions there is possible continuity instead of the discreteness of generations.

I claim for the above view of the relation between psychologically primitive data and the precise data of science various merits which, as I shall try to show, do not seem to be possessed by Professor Dewey's theory.

(a) The transition, as we have been explaining it, is a continuous one, and is one not having a terminus in either direction. No perception can be so precise as to be incapable of greater precision—unless, indeed, we were to accept, in regard to all physical things, the theory of *quanta*, and hold that all physical quantities are discrete, in which case there would be a theoretical limit of complete exactitude, though of course far below the threshold of our perceptions. And at the other end of the scale, no perception can be so vague as to be incapable of greater vagueness, unless, indeed, the world appeared always just the same whatever the environment might be. Perhaps absence of life might consist in this absolute vagueness; but where there is life, even so low in the scale as the amoeba, an environment which contains food will seem different from one

² These inferences are not logically cogent, and are sometimes mistaken, but that is a point that need not concern us at this moment.

which does not (to judge by behavior), and will therefore be perceived with less than the maximum of vagueness.

(b) Another advantage of our definition and theory is that it allows *some* inferential value to even very vague data. It does not have to say: The precise observation of the scientist gives truth, and the vague feeling of the infant gives error. Still less does it have to say the opposite. Assuming a common-sense world, and leaving aside all doubts as to causality, induction, *etc.*, our perceptions always give tolerable ground for *some* expectation or inference; but though the vaguer perceptions may give inferences which (in some sense) cover a wider field, the more precise perceptions allow more inferences within the field they cover. That is to say, suppose what is originally one vague object of attention *A* (a crowd, say) is correlated with what are later ten more precise objects of attention (ten men, say), then regarding any one of these ten (*Z*, say) the system of its correlates can be better known when *Z* is perceived than it could when only *A* was perceived.

(c) Connected with this is one of the great merits of our theory: namely, that it does not involve an Unknowable, either at the beginning or at the end, because the differences involved are differences of degree, and it is not necessary to assume the existence of an unattainable limit in either direction. There will doubtless be degrees that are *unknown*, but that is a different matter from having to declare them *unknowable*. Any one of them might become known at any moment. The case is analogous to that of a large finite integer which no one has ever happened to think of: any one *might* think of it any moment. In like manner any degree of vagueness or exactitude might be attained, and there is no need to suppose that there is such a thing as an absolute exactitude, which would be unattainable.

There are, not unconnected with our last point, certain other questions which, to my mind, raise difficulties as to Professor Dewey's instrumentalism. It would seem to follow from what he says that, although we can know that there are crude data, yet we can never know any particular crude datum, because objects of *knowledge* have to be objects of a certain kind, and crude data are not of this kind. Now I do not say that such a view is impossible, but I do say that it is difficult, and that, before it can be accepted, something must be done to show that the difficulties are not insurmountable. This brings us, however, to a general discussion of what Professor Dewey calls "instrumentalism."³

³ I leave on one side, for the present, the question raised in the fourth and fifth of the quotations with which we began this section, namely, the question whether sensations and perceptions are cases of knowledge. I do not myself

II. INSTRUMENTALISM

The theory which Professor Dewey calls instrumentalism is a form of pragmatism, but (as appears by the twelfth essay, on "What Pragmatism Means by Practical") it is a pragmatism which is not intended to be used for the support of ancient superstitions or for bolstering up common prejudices. Some quotations, again, will serve to state the position which he advocates.

1. "If we exclude acting upon the idea, no conceivable amount or kind of intellectualistic procedure can confirm or confute an idea, or throw any light upon its validity" (p. 240).

2. "Instrumentalism means a behaviorist theory of thinking and knowing. It means that knowing is literally something which we do; that analysis is ultimately physical and active; that meanings in their logical quality are stand-points, attitudes, and methods of behaving towards facts, and that active experimentation is essential to verification" (pp. 331-332).

3. "The thesis of the essays is that thinking is instrumental to a control of the environment, a control effected through acts which would not be undertaken without the prior resolution of a complex situation into assured elements and an accompanying projection of possibilities—without, that is to say, thinking. Such an instrumentalism seems to analytic realism but a variant of idealism. For it asserts that processes of reflective inquiry play a part in shaping the objects—namely, terms and propositions—which constitute the bodies of scientific knowledge. Now it must not only be admitted but proclaimed that the doctrine of the essays holds that intelligence is not an otiose affair, nor yet a mere preliminary to a spectator-like apprehension of terms and propositions. In so far as it is idealistic to hold that objects of knowledge *in their capacity of distinctive objects of knowledge* are determined by intelligence, it is idealistic" (p. 30).

4. "Again, the question may be asked: Since instrumentalism admits that the table is really 'there,' why make such a fuss about whether it is there as a means or as an object of knowledge? . . . Respect for knowledge and its object is the ground for insisting upon the distinction. The object of knowledge is, so to speak, a more dignified, a more complete, sufficient, and self-sufficing thing than any datum can be. To transfer the traits of the object as known to the datum of reaching it, is a material, not a merely verbal affair" (pp. 44-45).

The view of Professor Dewey, if I understand him rightly, might be restated roughly as follows: The essence of knowledge is *inference* (p. 259), which consists in passing from objects present to others not now present. In order that this may be possible, one of the essentials is that the material originally given should be so shaped as to become an available tool for inference. After this shaping, it becomes what *science* calls a datum; it is then something different from what was there before. The essence of a belief is the behavior which exemplifies it (which is it, one is tempted to say); this behavior is such as is intended to achieve a certain end, and the

believe that this question is of great importance to the issue between him and me. I shall return to this topic briefly at a later stage.

belief is shown in the behavior adopted for that purpose. The belief is called *true* when the behavior which exemplifies it achieves its end, and false when it does not—omitting refinements due to co-operation of different beliefs. Knowledge is like a railway journey: it is a humanly constructed means of moving from place to place, and its matter, like the rails, is as much a human product as the rest of it, though dependent upon a crude ore which, in its unmanufactured state, would be as useless to intellectual locomotion as iron ore to locomotion by train.

There is a great deal that is attractive in this theory. I am not prepared dogmatically to deny its truth, at any rate in great part. But there are some problems which it *seems* to be unable to deal with.

First and foremost, we have the problem of the crude datum. The crude datum, in Professor Dewey's view—the “large but confused” original datum of William James—is something which lies outside knowledge. This has to do with the other thesis, exemplified in the fourth and fifth quotations of our previous section, that sensations and perceptions are not cases of knowledge, but inference alone is a case of knowledge. This, further, has to do with the practical bias—the view that knowledge must be treated as a means to something else. It is true, I think, that as a help in practical life the sort of knowledge we need is the sort that embodies or suggests inference. We want to know what will help or hinder, which is always a question of inference in a behaviorist sense. And here, further, if we are to take behaviorism seriously, we must contend; for example that a man or animal who eats something believes (unless he is tired of life) that it is nourishing food, however little he may reflect—for he has adopted the behavior appropriate to that belief, and belief must not depend for its existence upon anything except behavior. Thus in every case of eating there will be a case of inference. But the sort of knowledge that would be called “contemplation” has to be abandoned on this view.

Let us develop the point of view which is suggested, rather than fully stated, by Professor Dewey. It might with advantage, I think, be brought into connection with the thesis which the “neutral monists” have taken over from William James, that there is no such thing as “consciousness,” and that what are called the mental and the physical are composed of the same material. It is not difficult to make sensation and perception fit into this view, by means of the thesis, urged in some of the above quotations, that they are not cases of knowledge at all. It is more difficult to fit in judgment and inference. But judgment is practically denied by Professor Dewey, as something distinct from inference; and inference is interpreted on behavioristic lines. Interpreting him, we might say: “Inference

is behavior caused by an object *A* and appropriate if *A* is succeeded or accompanied by *B*." I do not say that this definition would be accepted: it is schematic, and artificially simplified, but it may serve to exemplify the theory we are examining. We thus arrive at some such picture as the following: Man, an animal struggling for self-preservation in a difficult environment, has learned to behave towards objects as "signs"—a practise which exists also among other animals, but in less developed forms. An object which is not in itself either useful or harmful may come to be a "sign" of something useful or harmful which is frequently found in its neighborhood, that is to say, it may come to promote behavior appropriate to that of which it is a sign, rather than to itself. Such behavior may be said to embody inference, or the "knowledge" that the object in question is a sign of the inferred object. Objects which are useful as signs acquire a special interest, and it is an essential part of the business of science to perfect the manufacture of such objects out of the material presented in nature. Such, it seems to me, is Professor Dewey's theory in outline.

I do not wish to maintain that this theory is false; I wish only to suggest that the reasons for thinking it true are far from adequate.

The first criticism that naturally occurs to any one who has endeavored to ascertain the truth about causality is, that the theory is amazingly light-hearted in its assumption of knowledge as to causality.⁴ The writings of Hume, I know, are inconvenient. There are two recognized methods of dealing with what he has to say on Cause: one is to maintain that Kant answered him, the other is to preserve silence on the matter. I do not know which of these is the more inadequate. The second is the one adopted by Professor Dewey (in common with other pragmatists). His conception of signs and inference, his whole notion of knowledge as instrumental, depends throughout upon acceptance of the ordinary common-sense view of causation. I do not wish to be misunderstood in this criticism. I am willing to believe that there may be a great measure of truth in the common-sense view of causation, and I am incapable of saying or writing much without assuming it, at least verbally. The point is not that this view must be false, but that, for instrumentalism, it must be *known* to be true. We must actually know particular causal laws. Our beliefs will be beliefs in causal laws, and we must know what effects are caused by our beliefs, since this is the test of their value as instruments. The very conception of an "instru-

⁴ "The term 'pragmatic' means only the rule of referring all thinking, all reflective considerations, to *consequences* for final meaning and test" (p. 330). "Consequences" is a causal word.

ment" is unintelligible otherwise. For those who are troubled by Hume's arguments, this bland ignoring of them is a difficulty, suggesting, at least, that a good deal of re-statement and further analysis is necessary before instrumentalism can take its place among articulate possible philosophies.

The second criticism which occurs to me is closely allied to the first. It is, that Professor Dewey ignores all fundamental skepticism. To those who are troubled by the question: "Is knowledge possible at all?" he has nothing to say. Probably such a question would appear to him otiose; he would argue (no doubt justly) that to a *fundamental* skepticism there can be no answer except a practical one. Nevertheless, a theory of knowledge should have more to say on the matter than he has to say. There are different levels of skepticism; there are popular prejudices which are easily dissolved by a little reflection, there are beliefs which we can just succeed in feeling to be doubtful by prolonged destructive analysis (such as the law of causation for example), and there are beliefs which it is practically impossible to doubt for more than a moment, such as the elementary propositions of arithmetic. But the beliefs which are epistemologically primitive in Professor Dewey's system will have to involve propositions which even the most hardened anti-skeptic could be made to doubt without much trouble. For, if the truth of a belief is proved by its being a good instrument, we have to know what effects the belief has, what effects other beliefs would have had, and which are better. This sort of knowledge is surely about as doubtful as any that would ever be called knowledge. We also assume to begin with, in Professor Dewey's system, the whole of what is involved in the biological position of man: the environment, the struggle for existence, and so on. Thus our theory of knowledge begins only after we have assumed as much as amounts practically to a complete metaphysic.

This might be admitted, since Professor Dewey considers that "theory of knowledge," as a subject, is a mistake. I suppose he would say, what I should agree to in a certain fundamental sense, that knowledge must be accepted as a fact, and can not be proved from outside. I find, however, both in this respect and as regards data, an insufficient realization of the importance of degrees and continuous transitions. The passage from crude data to the most refined data of science must be continuous, with truth at every stage, but *more* truth in the later stages. So there is a gradation of truths; and similarly there is a gradation of beliefs, a continuous passage from what we feel to be very uncertain up to what we can not doubt, with some degree of belief at each stage, but more at the later stages. And theory of knowledge exists as a subject which en-

deavors to organize our beliefs according to the degree of conviction, and to attach as many as possible to those that have a high degree of conviction. If it be asked: "Is a belief of which I feel strong conviction more likely to be true than one of which I feel a good deal of doubt?" we can only answer that, *ex hypothesi*, we *think* it more likely to be true. And there is no miracle by which we can jump outside the circle of what we *think* to be true into the region of what *is* true whether we think so or not.

Professor Dewey, in an admirable passage, points out the effect of bias in forming the theories of philosophers. He says:

"It is an old story that philosophers, in common with theologians and social theorists, are as sure that personal habits and interests shape their opponents' doctrines as they are that their own beliefs are 'absolutely' universal and objective in quality. Hence arises that dishonesty, that insincerity characteristic of philosophic discussion. . . . Now the moment the complicity of the personal factor in our philosophic valuations is recognized, is recognized fully, frankly, and generally, that moment a new era in philosophy will begin. . . . So long as we ignore this factor, its deeds will be largely evil, not because *it* is evil, but because, flourishing in the dark, it is without responsibility and without check. The only way to control it is by recognizing it" (pp. 326-7).

These are very wise words. In spite of the risk, I propose to take the advice, and set down, as far as I can, the personal motives which make me like or dislike different aspects of behaviorism and instrumentalism, *i. e.*, motives which would make me *wish* them to be true or false.

I have a strong bias in favor of the view, urged by James and most American realists, that the mental and the physical are merely different arrangements of the same stuff, because this (like every other application of Occam's razor) gives opportunities for those logical constructions in which I take pleasure. I tried (in my *External World*) to show how the particulars that (in my view) make up the stuff of the world are capable of a two-fold classification, one as physical things, the other as biographies or monads, or parts of monads. Such logical constructions I find enjoyable. Desire for enjoyment of this sort is a creative bias in my philosophy—*i. e.*, what Kant (less self-consciously) would call a regulative idea of reason. The same bias makes me like behaviorism, since it would enable me to define a belief as a certain series of acts. An act inspired by two beliefs would be a member of the two series which would be the respective beliefs. In this definition I find, further, a good-natured malicious pleasure in thinking that even the theories conceived by those who hate mathematical logic can be taken over and stated in such terms as will make them repulsive to their own parents. I recognize that this is a shameful motive, but it does not

cease to operate on that account. All these motives combine to make me like behaviorism and neutral monism, and to search for reasons in their favor.

My bias as regards instrumentalism and pragmatism is quite different. Often (though not in Professor Dewey) pragmatism is connected with what I regard as theological superstition, and with the habit of accepting beliefs because they are pleasant. Some ascetic instinct makes me desire that a portion, at least, of my beliefs should be of the nature of a hair shirt; and, as is natural to an ascetic, I incline to condemn the will-to-believers as voluptuaries. But these feelings are not roused in me by the pragmatism which is advocated in this book: on the contrary, the very genuine scientific temper in the book appeals to me. Nevertheless there is a profound instinct in me which is repelled by instrumentalism: the instinct of contemplation, and of escape from one's own personality.

Professor Dewey has nothing but contempt for the conception of knowledge as contemplation. He is full of that democratic philanthropy which makes him impatient of what seems to him a form of selfish idleness. He speaks of

"that other great rupture of continuity which analytic realism would maintain: that between the world and the knower as something outside of it, engaged in an otiose contemplative survey of it. I can understand the social conditions which generated this conception of an aloof knower. I can see how it protected the growth of responsible inquiry which takes effect in change of the environment, by cultivating a sense of the innocuousness of knowing, and thus lulling to sleep the animosity of those who, being in control, had no desire to permit reflection which had practical import . . ." (pp. 72-3).
and so on, and so on.

Will the present amusing inappropriateness of these remarks to the case of one at least among analytic realists suggest to Professor Dewey that perhaps he has somewhat misunderstood the ideal of contemplation? It is not essential to this ideal that contemplation should remain without effect on action. But those to whom contemplative knowledge appears a valuable ideal find in the practise of it the same kind of thing that some have found in religion: they find something that, besides being valuable on its own account, seems capable of purifying and elevating practise, making its aims larger and more generous, its disappointments less crushing, and its triumphs less intoxicating. In order to have these effects, contemplation must be for its own sake, not for the sake of the effects: for it is the very contrast between action and pure contemplation that gives rise to the effects. William James in his *Psychology* urges (if I remember right) that when a man has been enjoying music he should show how he has benefited by being kind to his aunt; but

the man who could not appreciate music apart from its effect on conduct would never be enough stirred by it to have his conduct improved, and would be just as unkind to his aunt after a concert as at other times. The habit of making everything subservient to practise is one which takes the color out of life, and removes most of the incentives to practise of a really noble kind.

Escape from one's own personality is something which has been desired by the mystics of all ages, and in one way or another by all in whom ardent imagination has been a dominant force. It is, of course, a matter of degree: complete escape is impossible, but some degree of escape is possible, and knowledge is one of the gateways into the world of freedom. Instrumentalism does its best to shut this gateway. The world which it allows us to know is man-made, like the scenery on the Underground: there are bricks and platforms and trains and lights and advertisements, but the sun and stars, the rain and the dew and the sea, are no longer there—sometimes we seem to catch a glimpse of them, but that is a mistake, we only see a picture made by some human being as an advertisement. It is a safe and comfortable world: we know how the trains will move, since we laid down the rails for them. If you find it a little dull, you are suffering from the "genteel tradition," you belong to an "upper" class given to a detached and parasitic life (p. 72). I have now expressed my bias as regards the view that we are not free to know anything but what our own hands have fashioned.

III. THE EXTERNAL WORLD AS A PROBLEM

I come now to the defense of certain views of my own against the criticisms of Professor Dewey, especially as contained in the eleventh essay, on "The Existence of the World as a Logical Problem."

A great deal of what is said in this essay depends upon the misunderstanding as to the sense in which I use "data," which we have already discussed. For example, on p. 290 ff., I am criticized for taking as "really known" (when we observe a table from different points of view) a set of facts which are complicated, involving series and logical correlations. Now such criticism all rests upon the supposition that what is "really known" is intended to be something which is believed at an earlier time than what is (if possible) to be proved by its means. This is not how I conceive the problem. I find myself, when I begin reflecting on the external world, full of hitherto unquestioned assumptions, for many of which I quickly realize that I have as yet no adequate reason. The question then arises: what sort of reason could I hope to discover? What, apart

from argument and inference, shall I find surviving a critical scrutiny? And what inferences will then be possible? I give the name "data" or rather "hard data" to all that survives the most severe critical scrutiny of which I am capable, excluding what, *after the scrutiny*, is only arrived at by argument and inference. There is always much argument and inference in reaching the epistemological premisses of any part of our knowledge, but when we have completed the logical articulation of our knowledge the arguments by which we reached the premisses fall away.

The chief thing that I wish to make clear is that, in discussing the world as a logical problem, I am dealing in a scientific spirit with a genuine scientific question, in fact a question of physics. Professor Dewey, almost wilfully as it seems, refuses to perceive the question I am discussing, and points out the irrelevance of what I say to all sorts of other questions. It is perfectly clear that, starting from a common-sense basis, what a physicist believes himself to know is based partly upon observation and partly upon inference. It is also clear that what we *think* we observe is usually much more than what, after closer attention and more analysis, we find we really did observe—because habitual inferences become unintentionally mixed up with what was actually observed. Thus the conception of a "datum" becomes, as it were, a limiting conception of what we may call scientific common-sense. The more skilled an observer has become, the more what he thinks he has observed will approximate to what I should call a "datum." In all this, we are proceeding along ordinary scientific lines. And the utility of such analytic data for inference is fully recognized by Professor Dewey. But he is continually misled by the recurrent belief that I must be speaking about beliefs that are early in time, either in the history of the individual or in that of the race. However, I have said enough already on this aspect of the question.

A phrase about "our own" data leads to the question: "Who are the 'we,' and what does 'own' mean?" (p. 282 *n*). The answer to this is that it is quite unnecessary to have any idea what these terms mean. The problem with which I am concerned is this: Enumerate particulars in the world and facts about the world as long as you can; reject what you feel to be doubtful; eliminate what you see to be inferred. There then remains a residuum, which we may call "data." The outsider may define this residuum as "your" data—but to you they are not *defined* in their totality, they are merely enumerated: they are a certain collection of particulars and facts, and they are the total store from which, at the moment, you can draw your knowledge of the world. Then the question arises: what inferences are justified by this store of par-

ticulars and facts? This is a perfectly genuine problem. It is no use to find fault with me on the ground that my problem is not some other, which is more interesting to Professor Dewey, and which I am supposed to be intending to attack in a muddle-headed way. And it is no use to shut one's eyes to my problem on the ground that it may be inconvenient. Every philosophy has been invented to solve some one problem, and is incapable of dealing with many others; hence every philosophy is compelled to be blind to all problems except its own. It is time that philosophers learned more toleration of each other's problems.

Some of Professor Dewey's criticisms are so easily answered that I feel he must have found my views extraordinarily distasteful or he would never have made objections with so little cogency. Take, *e. g.*, the contention that it is a mistake to call color "visual" or sound "auditory" until we know that they are connected with eye and ear respectively. The answer is, that, quite apart from physiology, objects which (as we say) are "seen" have a common quality which enables us to distinguish them from objects "heard." We do not need to experiment by shutting the eyes and stopping the ears in order to find out whether the sense-datum of the moment is "visual" or "auditory:" we know this by its intrinsic quality. When I speak of "visual sense-data," I mean colors and shapes, and it is not the least necessary to know that it is through the eye that I become acquainted with them. Another very feeble argument is the objection (p. 285 *n*) to my calling certain things "self-evident" on the ground that a thing can not offer evidence for itself. This is not what is meant by "self-evident." What is meant is "known otherwise than by inference." Professor Dewey's contention almost suggests a quibble à la Plato to prove that no man can be self-taught, because we can only teach what we know and learn what we do not know, and therefore it is impossible that teacher and learner should be one and the same. But this is not the type of argument that Professor Dewey would wish to be caught using.

Another source of confusion in Professor Dewey's arguments is that he is apparently unaware of the distinction that I draw between the universal "red" and particulars which are instances of it.⁵ I dare say this distinction may be mistaken, but it is in any case an essential part of my theory, and I can not be refuted by arguments which ignore it. This applies particularly to the paragraph on p. 288 beginning, "If anything is an eternal essence, it is surely such a thing as color taken by itself, as by definition it must be taken in the statement of the question by Mr. Russell. Anything

⁵ See "On the Relations of Universals and Particulars," *Proc. Arist. Soc.*, 1911-1912.

more simple, timeless, and absolute than a red can hardly be thought of." And at the end of the same paragraph another even larger question is raised, namely that of the temporal position of a simple particular. In the case which I am supposing, we are told, "we are dealing in the case of the colored surface with an ultimate, simple datum. It can have no implications beyond itself, no concealed dependencies. How then can its existence, even if its perception be but momentary, raise a question of 'other times' at all?" (p. 289). One might retort simply by a *tu quoque*: tell us, one might say, what is your way of reaching other times? One might reply that it is of the very essence of my theory that the datum is usually *not* simple—that it is a fact, and facts are not simple (statements both noted by Professor Dewey, but supposed to constitute an inconsistency). One might point out that Professor Dewey, repeatedly, shows that he has failed to take account of the analysis of the time-order suggested both in Chapter IV of the book he is discussing and in the *Monist* for 1915—an analysis which, right or wrong, demands discussion in this connection. But the chief thing to point out is that, in the problem in question, we are up against the very question of causality and knowledge of the future, which, so far as I can discover, Professor Dewey has never faced.

After a description of the kind of world which I accept as datum, the essay proceeds (p. 292): "How this differs from the external world of common sense I am totally unable to see. It may not be a very big external world, but having begged a small external world, I do not see why one should be too squeamish about extending it over the edges." Now there are several points to be made in reply to this criticism: (1) as to what I mean by an "external" world; (2) in what sense the world I start from is "begged"; and (3) how this world that I start from differs from that of common sense.

1. The word "external" is perhaps an unfortunate one to have chosen, and the word "inferred" would have been better. Professor Dewey does not admit that we can be said to "know" what I call sense-data; according to him they simply occur. But this point, though he makes much of it, seems to me to make very little difference as regards our present question. He admits (pp. 259-260) that perceptions are the source of our knowledge of the world, and that is enough for my purposes. I am quite willing to concede, for the sake of argument, that perceptions are not cases of cognition; indeed my desire to accept neutral monism if possible gives me a bias in that direction. I see objections which I think he has not shown how to meet, but I am not at all sure that they can not be met. However that may be, Professor Dewey and I are at one in

regarding perceptions as affording data, *i. e.*, as giving the basis for our knowledge of the world. This is enough for the present; the question of the cognitive status of perceptions need not concern us.

Now it is a plain fact that what I see and hear has some relation to my knowledge which is not possessed by information obtained through historical or geographical reading. This is admitted, implicitly, by Professor Dewey in the passage just referred to. The words used for describing the difference are immaterial. When the difference is first noticed, it is vague and blurred, as is usually the case with newly cognized differences. Reflection tends to show that, as the difference comes to be drawn with more skill, less and less appears on the same side as what is seen and heard, and more and more appears on the same side as what we learn through reading. Nevertheless, if I am not mistaken, even the most rigid scrutiny will leave, on the same side with what is seen or heard, certain things remembered (with the fact that they are past), various observed relations (in part rather complicated), and some *a priori* knowledge—whether all of it logical or not, I do not know.

All this group of particulars and facts constitute what I call "data." They make up the world which I am intending to contrast with the "external" world. I do not wish spatial notions to intrude: the world that I call "external" is so called only in this sense that it lies outside the group of data—"outside" in the logical sense. The problem that I wish to discuss is: "Can we make any valid inferences from data to non-data in the empirical world?" In the mathematical world we know that we can. Starting with a few numbers, we can infer other numbers *ad lib.* In the physical world, science and common sense believe that similar inferences are possible. Are they justified? If so, why? If we can not at present decide the question, can we see any way by which it *might* be decided? These problems are genuine, and no useful purpose is served by trying to evade them.

2. To say that I have "begged" a small external world is to miss the point. I have accepted it as datum, because that is the sort of world that, speaking empirically, seems to me, rightly or wrongly, to be given. Professor Dewey does not argue that this is not the case; he merely contends that it is not the world that is "given" in a different sense, *i. e.*, as I understand, given to babies, which is irrelevant. The "given" world that I am speaking of is that which is "given" to the most educated person to be found in the matter of physical observation and the distinguishing of observation from inference. If I have wrongly described the "given" world (in this sense), I am ready to amend the description. It makes very little difference to my problem what is the *detail* of the

description of the given world. If Professor Dewey will offer me an alternative (provided he will remember that it is not the *historical* primitive that I want), I make little doubt that the bulk of my argument will be able to adapt itself with little alteration. I have not "begged" my small external world any more than Columbus begged the West Indies; I have merely chronicled what I observe. I can not prove that it is there except by pointing to it, any more than Columbus could. But if others do not see what I point to, that does not prove that I do not observe it. There is no reason why what one person can observe should be also open to the observation of another. Nevertheless, to chronicle what one observes is not the same thing as to "beg" a world.

3. As to how my initial world of data differs from the world of common sense, there are various ways: (a) by extrusion of the notion of *substance*, since I do not consider a physical thing, such as a table, to be a datum at all, and I do consider that it is a series of classes of particulars, not a single particular. (I am not speaking of the fact that the table has physical parts: what I say would be equally true of an atom or electron, according to the theory). (b) Among *data* we can only include the existence of a particular during the time when it is a datum: its existence or non-existence before and after that time, if knowable at all, can only be known by inference. The things that Professor Dewey says on this subject (pp. 286-290) are only explicable to me by supposing that, when I speak of "inference to other times," he thinks that I mean inference to the existence of other times, whereas I mean inference to the existence-of-something-described at a time when something else is known to be existing. *E. g.*, I look out of the window and see, as we say, a tree; I look back to my book and see print. Can I know whether what I saw when I looked out of the window, or anything in any way correlated with it, exists while I am looking at my book? My world of data does not include anything which gives an answer to this, whether affirmative or negative; an answer will not be possible unless there are valid inferences from particulars at certain times to (described) particulars at certain other times. (c) In particular, my world of data does not include anything of other people except their outward show. In these and other ways it is very fragmentary as compared with the world of common sense.

Professor Dewey takes advantage (*e. g.*, p. 295) of occasions when, for the sake of brevity, I have adopted the language of common sense. To avoid this altogether would hardly be possible without adopting the language of mathematical logic. But there are hardly a dozen philosophers living who will take the trouble to read anything written in that language. And so long as one uses lan-

guage they will condescend to read, one is condemned to the vaguenesses, inaccuracies and ambiguities which keep philosophy alive.

There is much that, if space permitted, I should have wished to say on the subject of *time*. Meanwhile, I will conclude with the hope that the reader will perceive the reality of the problem which concerns me. There is a passage in the Essay we have been considering which seems to show why Professor Dewey and I have such difficulty in understanding one another. He says (p. 299): "No one can deny that inference from one thing to another is itself an empirical event, and that just as soon as such inference occurs, even in the simplest form of anticipation and prevision, a world exists like in kind to that of the adult." Certainly no one denies that inference is an empirical event. What is being examined is not its *occurrence*, but its *validity*. The above passage seems to suggest that if I infer a world, there is a world. Yet I am not the Creator. Not all my inferences and expectations could prevent the world from coming to an end to-night, if so it were to happen. I trace in the above quotation, as in much of what pragmatists write, that instinctive belief in the omnipotence of Man and the creative power of his beliefs which is perhaps natural in a young, growing, and prosperous country, where men's problems have been simpler than in Europe and usually soluble by energy alone. Dr. Schiller says that the external world was first discovered by a low marine animal whom he calls "Grumps," who swallowed a bit of rock that disagreed with him, and argued that he would not have given himself such a pain, and therefore there must be an external world. One is tempted to think that, at the time when Professor Dewey wrote, many people in the newer countries had not yet made the disagreeable experience which Grumps made. Meanwhile, whatever accusations pragmatists may bring, I shall continue to protest that it was not I who made the world.

BERTRAND RUSSELL

REVIEWS AND ABSTRACTS OF LITERATURE

Contributions to Psycho-Analysis. S. FERENCZI. Translation by ERNEST JONES. Boston: Richard G. Badger. 1916. Pp.——

These contributions, originally published in Hungarian and German in various journals by one of the best known and brilliant of Professor Freud's pupils, have been collected and translated by Dr. Ernest Jones in their present form. For one who has read many of the articles in the original one of the most poignant impressions is the joy to be derived from a translation in such excellent English

that it conveys not only the exact meaning, but the spirit of the original. One can do no less than to recommend this book as a model for critical study to all translators in this field.

The book is valuable also as showing in its various chapters the landmarks in the development of the theories and practise of psychoanalysis. The very first chapter on the analytical interpretation and treatment of psycho-sexual impotence shows this clearly, when one notes the trend that is implied in the sentences added at the end of the chapter, which is abstracted from a short article written several years later. The chapter on introjection and transference is especially interesting and opens up many new viewpoints in the processes of hypnotism and suggestion. The chapter on the psychological analysis of dreams is the best one in the literature for lay readers. The rest of the book contains material that no psychologist interested in human behavior can afford to leave unread.

LEONARD BLUMGART

NEW YORK.

JOURNALS AND NEW BOOKS

REVISTA DE FILOSOFIA. July, 1918. *Notas sobre el problema de la degeneracion* (pp. 1-31): CARLOS O. BUNGE.—Degeneration is rapidly increasing in our modern society. There are two classes of degenerates, the lower class which comprises the idiots and the criminals, and the higher class represented by the man of genius. *Probabilidades* (pp. 32-40): JORGE DUCLOUT.—The theory of probabilities, besides its well-known applications, can also be applied, and is applied by the author to a theory of the evolution of the world. *Por la lógica positivista* (pp. 41-52): LEOPOLDO MAUPAS.—The logic of positivism has had two series of opponents: the dogmatists, who make use of false arguments, and the anti-intellectualists, such as Bergson, whose theories are brilliant, but meaningless. *Los sentimientos y la conducta durante la crisis de la pubertad* (pp. 53-69): VICTOR MERCANTE.—A psychological study of the evolution of feeling in early youth. *Un decreto del virrey Cisneros sobre instrucción primaria obligatoria* (pp. 70-75): RICARDO LEVENE.—In 1809, Cisneros, viceroy of Buenos Aires, promulgated a decree making primary education compulsory. *En el museo etnográfico* (pp. 76-83): S. DEBENEDETTI.—Speech delivered on occasion of the inauguration of Ambrosetti Hall in the Ethnographic Museum. *La mentalidad místico-romántica y la filosofía científica* (pp. 84-89): H. F. DELGADO.—The greatest obstacle to progress is that men despair and think things impossible. *Ideales viejos e ideales nuevos* (pp. 90-

134): JOSÉ INGENIEROS. — In the feudal society, human life was considered as a state of transitory expiation, and the individual will was subordinated to the power of the state. In the new society which is building itself, the rights of the individual are asserting themselves every day with a new vigor. *Sucesos de la Universidad de Córdoba*.

Boynton, Richard Wilson. *The Vital Issues of the War*. Boston: The Beacon Press. 1918. Pp. viii + 134. \$1.00.

Drummond, Margaret. *The Dawn of Mind: An Introduction to Child Psychology*. London: Edward Arnold. New York: Longmans, Green & Company. 1918. Pp. xi + 179. \$1.10.

Follett, M. P. *The New State: Group Organization the Solution of Popular Government*. New York: Longmans, Green & Company. 1918. Pp. 375. \$3.00.

NOTES AND NEWS

DR. DAVID MITCHELL, of the Bureau of Educational Experiments, New York City, has rendered a service to clinical psychologists and students of mental testing through his revised classified bibliography of psychological tests. In addition to being an exhaustive catalogue of all worthy tests in the field, the bibliography furnishes further valuable aid by classifying titles under various headings, so that one who wishes to work in a special field may readily find the necessary references. The first three parts of the bibliography include discussions of general problems, the development of procedures, and the treatment of results. Another part lists the tests which may be used as group tests, and still another part arranges the tests according to name and names of the authors reporting on the tests. Dr. Mitchell gives promise of keeping this bibliography up to date by stating that further additions will be made when the references are available.

DR. WALTER B. SWIFT, of Boston, has been appointed Consultation Expert for Speech Defects to the Division of Medical Inspection of the Public Schools of Cleveland, Ohio. He is engaged in installing methods in speech correction by directing some 15 teachers whom he trained last summer to conduct speech correction classes.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE USE AND MISUSE OF HISTORY.

THE classics, it is said, must be expounded anew for every generation in order that they may continually bear fruit in the present. The recorded past is in itself mute; it receives its articulation from the mind of the present. We are impelled to reinterpret the records and sources, not merely because the material is frequently amplified by the discovery or rediscovery of forgotten records and the disclosing of remains hitherto neglected, but still more because the concepts that guide historical writing in one age are critically scrutinized and have their weaknesses revealed in a later period. Revision in the light of fresher ideas is accordingly welcomed, and a different fashion of writing history and different ideas concerning what may be expected from historical writing occupy the mind.

Signs are not lacking of a dissatisfaction with the ideas that regulated the larger works in the history of philosophy of the last century; the leading ideas that determined the point of view from which the history of philosophy was regarded in the more important works spread from them into the class-room compendiums, so that even the lesser works do not escape criticism. There exists, with respect to the history of philosophy, a keener sensitivity for distinguishing between the character of a philosophy in its original concrete setting and the traditions concerning that philosophy conserved by the histories of philosophy. Without attempting to define precisely the source of this warier attitude, it may be said that it is generated in the same circumstances that have given rise to the social and sociological point of view that prevails in contemporary thought. It is not easy to say just what this later attitude finds objectionable in the older histories of philosophy and what better mode of writing the history of philosophy should be suggested. However, a provisional characterization of the situation may be offered.

One cause of the rather common dissatisfaction with the customary manner of treating the history of philosophy may be described as the practise of turning the history of philosophy into a method of establishing the historian's own system of philosophy, or of confirming a certain type of philosophy as the outcome and

"lesson" of that history. Indirectly the history becomes an elaborate argument for this or that kind of philosophy. This may be regarded as inevitable because the historian of philosophy suffers from those limitations of sympathy and point of view that handicap all historians. But even if this be admitted we can assert that the privilege need not be abused. The difficulty is of course a part of the general difficulty of writing about the past in the present. It is the source of much skepticism concerning history as a whole. Lord Chesterfield, it is reported, during illness refused to have historical writings read to him because, he said, he knew they were lies. This is rather an elaborate recognition of the difficulty. History written before the event is prophecy and is not very dependable. But is history written while it is being made or after the making so much better? The historian recording contemporary happenings can seldom grasp or nicely balance the multitudinous forces that are engaged and revealed, his *aperçus* are generally either partial or superficial, and his profundities artificial. He is overwhelmed by the plethora of material. The historian writing after the event has certain advantages. The materials have been sifted; and after-effects may help to place causes in better perspective. But while the opening of archives and the revelation of secrecies, the winnowing of the material, and a more composed mind, are advantages, something has been lost. The animating spirit has paled and vanished. For the immediacy of sensing and comprehension and the active sympathy of the spectator the historian must substitute devious and dubious inferences, lacking in that warmth of intimacy of the 'participator which even the most strenuous exertion of a re-creative imagination can not wholly compass. At every step there is the danger of reconstructing the past in terms of the present while seeking to construe the present in terms of the past. There can be no completeness of record. However ample the data at our disposal, they are the desiccated remains of a living time. To resuscitate the life that is gone requires the infusion of life; but the only life open to the historian is that of his own age. Resuscitation is apt therefore to be a putting of a new life into the old body rather than the restoration of the departed life. An almost inveterate habit conspires to lead the historian to such an arrangement, organization, and evaluation of his data that the present and the more recent past are injected into the more distant past. The past thereby reconstructed is naturally displayed as organically connected with the present, and the past is deftly disclosed as containing embryonically the present.

These admissions however do not justify the use of the history of philosophy for establishing a doctrine or a tradition. We must

recognize that these handicaps are matters of degree and are subject to some control. If we should take them over-seriously we must conclude that historical research is a sort of sport, a poetical adventure, and history an art, not a science. And for that matter, the question whether history is an art or a science is still a matter of debate. "History, . . . , which passes for the account of facts, is in reality a collection of apperceptions of an indeterminate material; for even the material of history is not fact, but consists of memories and words subject to ever-varying interpretation. No historian can be without bias, because the bias defines the history. . . . Then, after the facts are thus chosen, marshaled, and emphasized, comes the indication of causes and relations; and in this part of his work the historian plunges avowedly into speculation, and becomes a philosophical poet And the value of history is similar to that of poetry, and varies with the beauty, power, and adequacy of the form in which the indeterminate material of human life is presented."¹ It would hardly be profitable to discuss the question whether the history of philosophy is an art or a science. Perhaps the simplest attitude to take is that the impediments enumerated are hardly insuperable obstacles to trustworthiness. They indicate the need of methods and agencies of control. And in any case, if it be insisted that the work of the historian of philosophy is always an art, the historian's artistry need not be mere license. It would be well to insist that he be constrained by his material and by a technique arising from a mastery of the materials. His imaginative constructions, even if he be a philosophical poet, should not be vagaries and magical exegetical tricks. One might recall Huck Finn's remarks concerning Mr. Twain's history of the *Adventures of Tom Sawyer*: Huck recognized that there were some "stretchers" in Mr. Twain's account of the adventures, and yet in the main he approved of the narrative. In similar fashion we can not wholly discredit history because of an occasional "stretcher." After all, the important consideration is the kind and degree of the stretching that is performed. Admitting that some stretchers are unavoidable, we may find consolation in the thought that a little stretching, if judicious, may add interest and relevance to a work even if it prejudices for the literal-minded its fidelity as record. It is worth while sacrificing some slight degree of completeness in a compilation of abstractions, on condition that the supposed lessons of the history really have a fruitful re-entry into later human experience. This may counterbalance the depreciatory attitude attributed to Chesterfield, and leads to an insistence on the need for the continual revision of history. History affords a sort of second-hand catholicity

¹ George Santayana: *The Sense of Beauty*, pp. 141-142.

of experience. But it must gain its relevance and applicability through a judicious and not a capricious organization of its raw material and it must genuinely extend experience.

The defect of the histories of philosophy that have had the greatest vogue is that they have done the stretching not wisely, but too well. At least too well for our present temper. Whatever world-views the more celebrated historians confirmed for their contemporaries through the history of philosophy, it can hardly be maintained that these works afford the present student a similar service. The peculiar manner in which the history of philosophy, the philosophy of history, and a diffused metaphysics or theology were intermingled is not as illuminating to our generation as to earlier generations. Just as history in general may degenerate into an edifying substantiation of an existent system of ideals and aspirations, and an elaborate confirmation of the finality of present values and ideas, so the history of philosophy can be written, and has been written, in such a way that the purposes of edification and apologetics are subserved. The fact that systems and the philosophers who write them influence one another may be shaped into a proof that the progressive attainment of truth leads to a certain later system and outlook as the consummation of the movement. Continuities of speculation become through this treatment an evidence and assurance that such speculation is "on the right track." This does not occur only when *a priori* ideas, and especially the doctrine of an immanent dialectical movement in history, form the basis of treatment. We have of course the clearest illustration of this fashion of writing the history of philosophy when it is so constructed. But the same difficulties occur on a more unassuming scale when no similar guiding ideas are avowed. From the more pretentious works the fashion passes into the simpler works. Besides, the temptation to find just a bit of immanent dialectic here and there is well-nigh irresistible, for the regularities and linkage thereby secured give the account a high degree of esthetic appeal. To get one stage of history out of a preceding stage, neatly, compactly, and inescapably, is as absorbing a feat as a conjurer's pulling a rabbit out of a hat. This flippant remark does not mean, of course, that there are no continuities of speculation, no criss-cross and longitudinal influences in the course of temporal events; it does mean, however, that the outcome of previous efforts to interlock all the materials of history or of the history of philosophy in one majestic movement suggests some skepticism even when the process is scaled down. There seems to be little likelihood of contemporary historians trying this grand style. The extent to which we are still influenced by those models is another question that we would do well

to ponder. If the flippancy is pardonable, one might ask how many of the secondary stretchers we can accept, granting that the wholesale stretching is no longer acceptable.

Even those to whom such ideas are repugnant may nevertheless be unwittingly victimized by them, particularly because of the brilliant examples of such work that we already possess, and because, indeed, the histories of philosophy to which the student is apt to turn are modeled in varying degrees after the classic expressions of this spirit. The influence in this direction of Hegel's *Phenomenology* and *Philosophy of History*, and of such works as Kuno Fisher's monumental *History of Modern Philosophy* is to this day a not inconsiderable force. To the Romantic movement in the early nineteenth century primarily is due the tendency to seek in history the manifestation of some one principle, the unfaltering progressive realization or development of something-or-other. In discovering the "historical point of view" the romanticist was apt to discover also a method of demonstrating the validity of romantic aspirations and sweeping generalizations concerning God, man, and the cosmos. Without depreciating the value and ancient services of the methods thus inaugurated or the results of such ideas, it is fair to point out how easily the notion of historical evolution combined with romantic ideals leads to manufactured history. J. T. Merz has indicated this danger as emanating from the Romantic movements: he notes a "secret tendency nursed in the school of Hegel to transform theological into philosophical dogmatics, and also to look upon the line of reasoning which runs through the idealistic systems as the true backbone of all philosophy, compared with which other speculations, naturalistic on the one side, theological on the other, have only collateral, but not truly systematic, importance. The latter tendency is probably most distinctly evident in Kuno Fisher's great *History*. It was, however, considerably mitigated in the later editions. . . ."² We can admit the evil results of Hegel's attitude without depreciating the value of some of his perceptions.

There are, of course, other histories of philosophy that certainly are not guilty of being sources of these forms of misguidance. Some are formidable compendiums of information, filled with reports of the dissection of systems. A few words concerning such phenomena as the rise of the Sophists, a brief elucidation of the attitude of the church in the nominalistic controversy, and other occasional bits of "historical background" sketched here and there, and that is about all there is to animate the dusty pages. They have their

² Merz: *History of European Thought in the Nineteenth Century*, Vol. 4, p. 266, note; cf. p. 741, and Vol. 3, p. 150.

utility as manuals in the anatomy of systems; if they contain no stretchers, neither do they manifest the pulse of life. They do not seduce the imagination; but neither do they enlarge or enervate it. Like mummies, the outward features are preserved, but the vital principle has departed.

Are we placed in a dilemma? Must the history of philosophy be either a compendium or syllabus or else an unrestrained manipulation of material for the substantiation of a transcendental principle or an over-expanded formula? Must it be either a digest, or a circumlocutious method of presenting a system or a type of philosophy as the crowning achievement of philosophical history?

To avoid the dry-as-dust, we may maintain, it is not necessary to admit that the history of philosophy must be whimsical and capricious. A preliminary programme or a synoptical point of view is in any case necessary. It is the guiding idea and method that require criticism and control.

Those who are convinced that history is always a species of poetry may say to all this: If interpretation in terms of the individual writer's point of view is inevitable, how can one be sure of betterment by rejecting the older ideas and advocating a new approach? Since every historian is influenced by the opinions of his own age and possesses foibles and preferences all his own, it follows that if he hasn't an outspoken *a priori* scheme which he seeks to illustrate in his history, he has some other scheme whose character and influence he may not wholly recognize, but which is in effect equally *a priori* and misleading. To this an appropriate reply can be made. Because every historian is limited and innocently biased in his attitude toward his subject-matter, it does not follow that their interpretative efforts are equally informing and valuable or equally pernicious and misleading.

The matter in dispute depends on the kind of idea which forms the leading principle of interpretation. The preliminary programmes vary in the degree to which they are amenable to control, subject to verification or checking-up of some sort; and in their congruity with the total progress of science and research. To guard against the whimsical, the extravagant and rhapsodical, is not so difficult. Poetry that can be identified as poetry does not easily pose as science. The effective beguilement of the mind occurs chiefly when poetry dons the sober mantle of a metaphysical or theological or "scientific" concept. The transcendental principle, embodying some sort of theological or metaphysical vision in more or less sublimated form, that has gathered authority and impressiveness from its possibilities of edification, soon gets out of hand. The

evolutionary formula, captivating in its brevity, packs all history into a few stages, and exerts a spell over the mind. The lesson of history may be invoked in the interests of various kinds of programmes. But the lesson must often be injected into history before it can be gotten out of it, unless we are to believe that time brings no genuine novelties.

These and similar notions are the chief sources of the injudicious stretchers. Principles of a transcendental character or a scientific formula whose universality and sufficiency are hastily assumed are responsible for this cavalier treatment of the raw materials. Principles too impressive to be called fanciful, too edifying to be discounted as whimsical, and too recondite to be submitted to a homely test, sustain the attempt to attribute one direction, a single character, and a fixed goal to the historical flux. The historian's mind is apt to be dominated by such ideas for they are frequently captivating. Ideas of a transcendental nature are more likely to transfigure history romantically than other programmes. For such ideas can not be verified. Often, indeed, they seem to be abundantly verified, but that is because we mistake illustration for verification, while the illustration is but a particular instance of interpretation in the light of the idea. Since the idea is insusceptible of verification, it owns an elusive adaptability that lends it a specious air of concreteness. The over-hasty extension of a scientific generalization is more speedily checked because the justification of values has not been staked upon its adequacy. And finally, since one way of finding support for a philosophical standpoint is to show how nicely it dovetails with the history of philosophy and how it strikes a balance between historical issues, the historian of philosophy assumes unconsciously a mediating function: while endeavoring to fit contemporary speculation to history, he is tempted also to fit history to contemporary speculation. So it comes about that the historical movements are given weights commensurate, not with their original importance, but with their connection with a present programme and its supporting tradition.

A glamor of infinite significance is conferred upon history and the history of philosophy when the basis of exegesis is an idea of an *a priori* and transcendental character. Crabbed philosophies become visions, and testy philosophers become seers when a system represents some sort of cosmic essence, or reflects the movement of reality, or forms a necessary stage in the realization of a pre-ordained goal. As the great men of history are sometimes viewed as instruments of the Almighty, so philosophers might be regarded as embodiments of the absolute. This seems to imply that the philosophy of no man can be

hopelessly vain and empty. It must contain its valid elements because it shares in a march which may seem devious but is really unswerving. For the very erroneousness of a philosophical idea is demanded in a necessary movement towards a fixed goal. And since what is evolving is human life, philosophy is an expression of life, perhaps its supreme expression, and it must be relevant to life. It is, indeed, the hidden core of that life. Philosophy in general, and everybody's philosophy in particular, is thus vindicated. Even when the exegetical formula is less poetic and romantic, the simplification of the course of history by means of the one principle provides a satisfaction for the mind that wishes to sum up existence in an epigram. This simplification makes a history that leaps from one matured systematic expression to another, with the confused processes of generation and maturation undisplayed. Historical philosophies are thus still further removed from the common life.

To protest against the assumption of the finality and inclusiveness of one formula of exegesis does not preclude the writing of history. It can be written in terms of less pretentious reductive schemes. What is thereby lost in loftiness of aim and elevation of thought is more than replaced by a useful precision in results. It should be possible to discover schemes of interpretation resting on a more assured basis, more amenable to control and empirical test, and involving a less finely-spun metaphysics. What is needed are ideas which, if unconfirmed by research, will not unhinge all existence and dislocate all values, and endanger misbegotten and high-flown hopes. Where so much is at stake, failure is too depressing to be tolerated. A premium is therefore put upon sleight-of-hand.

The truth of the matter is that histories of philosophy that shall organically relate systems to their generating conditions and connect concepts with the massive and fecund life of groups, have not been written. We do not possess histories that really relate the doctrines of different times to human life and the ideas and purposes then current, in such a manner that appraisal in a concrete setting is facilitated. Those that are launched under the imprimatur of some ultimate principle may purport to set forth the course of philosophy in organic connection with all the ramifications of human experience, but they dissatisfy because their focus of interest is the elucidation and illustration of the principle rather than a search for whatever ideas may be imbedded in the materials. They fluctuate between the interpretation of philosophy in humanistic terms and the interpretation of human events in terms of presuppositions concerning the character of the historical process. Without this double movement of adjustment history may

lose much of its consecutiveness and its esthetic and romantic charm, but it will be better history.

The real problem is often overlooked. The principles of interpretation must be developed from the historical materials, not history from an assumed principle. It is becoming, or has become, old-fashioned to try to sum up history in a phrase, or to know the forces and meanings supposed to be secreted beneath the surface of historical changes. It is proper modesty not to speak with assurance of the implicit aims and ends of history. We look upon history as made but not pre-ordained. Only by a constant play of the imagination over the data can the emergent ideas be apprehended and brought into clarity of statement. And we hesitate before attempting to reduce these ideas to a systematic unity to be hypostatized as the end or goal of history. It may seem paradoxical to insist that the data must generate the guides to interpretation, since, as has been pointed out, the mere assemblage of the data presupposes some degree of interpretation and constructive activity. The paradox exists only when the situation is considered abstractly. What it amounts to is an insistence on a constant give and take, as opposed to a wholesale preliminary taking. And at any rate, the paradox will hold of the verification of all hypotheses.

Here and there are sporadic attempts to accomplish the involution of historical philosophies and the circumstances of civilization and life in which alone they are rightly apprehended. But these efforts have mostly had the character of presenting the philosophical tableaux *against* a background of "social forces:" but just this projecting against a background leaves the actual interweaving and interlocking untouched. Perhaps the nearest approach to this ideal is to be found in the historical writings on general culture. These works, however, are concerned with philosophy proper only in a general sense. Some of them have had an axe to grind, being apologetical in character. And however close may be the community of interest between histories of culture and histories of philosophy, there is a demarcation between them based on a difference in purpose and emphasis.

There is nothing novel, of a surety, in claiming that philosophies germinate and sprout in a social and cultural matrix; that individual philosophies are the products of converging lines of thought and feeling; and finally, that they become the instruments by which the inarticulate and nascent ideas and aspirations are brought to clear consciousness and organized expression. Through the interaction between the products of reflection and the inchoate mass of sentiment and thought, occurring at every stage in the movement,

a more or less satisfying and consistent world-view or "reasoned creed," to borrow a phrase of Merz's, is evoked in the social consciousness. A system of ideas, varying in the degree of fidelity and pertinence to the germinating mass, is precipitated from the turgid inconstant complex in which the traditional, the accepted and unquestioned, and the sacrosanct are ceaselessly warring with the new and problematic elements that surge up because of the stress of circumstances; the new ideas represent the voicing of compelling needs that are all the more insistent because of the manifest infertility of the time-honored in the face of new situations. It must be urged, however, that there is no fixity of temporal sequence in these interactions, nor even a guarantee that the interactions shall occur. A philosophy may be comparatively foreign to the contemporary social environment, having little relevance or significance for it, and largely neglectful of its characteristic demands. The needed synthesis and articulation may come from art, from religion and poetry. Because philosophies are generated in societal life, and frequently afford it a genuine expression, it does not follow that they always do so, or that they always do so in the same degree. Through conservation of past superstitions, through one-sidedness of emphasis, or inaccuracy of diagnosis, and finally through the limitations of individual power and capacity, the response of this or that philosopher may be beside the point. Such philosophies lead nowhere and finally die of inanition. There are blind alleys in history. Again, the philosophical synthesis may be artificial, corresponding neither to contemporary needs nor to past needs: for it may be devoted to carrying out a problem which arose from an inadequate or unilateral comprehension of a bygone problem. There is such a thing as a society outgrowing a problem before philosophy has had time to find its solution. Or, if we must say that the problems do not change, but only the formulations of problems change (which often seems to be a distinction without a great deal of difference), we find the spectacle of society eagerly awaiting new formulations of its problems while philosophical interests are devoted to the older formulation, and philosophy acquires a value primarily antiquarian. To affirm that every philosophy is either essentially germane to its age, or else ahead of it, would be equivalent to ascribing to philosophers a power of efficient divination little short of miraculous. Hegel has something to say to the effect that the owl of Minerva does not take flight until twilight. To which might be added the wish that it could see how to fly in the daylight.

In short, the interaction of the products of speculation and the world of men is subject to manifold circumstances of time and

place: it is always contingent, accentuated by the unexpected novel-
ties that accrue from the sheer unpredictable creativeness of life
itself. To these matters our Pneumatologies and Histories of Cul-
ture and Histories of Philosophy based more or less consciously on
inflexible *a priori* schemes have done scant justice. And there are
considerations in extenuation of this neglect other than that in-
volved in the influence of the *a priori* expository principle.

In the first place, the more general and comprehensive the view
taken, the less apparent are the discontinuities that are intermingled
with the continuities of history. And furthermore, the minute
concatenations, as well as the preliminary and anticipatory expres-
sions of new ideas, are buried so deeply in a mass of historical rub-
bish that human patience can hardly be expected to delve into it.
The genealogy of doctrines is more apprehensible than the genesis
of ideas. For the genealogy deals with a partly systematized set of
ideas; it begins with a product and traces its subsequent history.
But the genesis of the fragmentary thoughts whose gradual agglu-
tination represents the starting-point of the first logical develop-
ment, is obscured and overlooked. And this holds whether the
origin of ideas is to be sought in the individual genius or in the
common life or in both together. The setting of a doctrine is often
recorded more concretely in history's lesser monuments than in its
greater, for the greater contain the product in its final stages and not
in its earlier moments. This gives to historical philosophies when
abstractly expounded a specious clairvoyance, an unreal detachment
and independence. Therefore the history of philosophy is likely to
present to us a series of results only, or to picture each development
of thought only in the later and more conscious stages of its fashion-
ing. These results can be the more readily organized into a con-
tinuity because of this simplification through omission, and because
they represent the more abstract stages of reflection in which the
peculiarities of origin are lost. And it is primarily in these ab-
stract stages that the new idea makes its juncture with the syste-
matic tradition; this contact, when that tradition has prestige and
authority, may lead to an adjustment of the new to the old, and
not of the old to the new. False perspectives of one sort or another
are engendered.

We have noted the fact that not every philosophy can be re-
garded as vitally related to the totality of cultural needs and prob-
lems. The relations it may sustain may be partial, and the philoso-
phy may be astigmatic, and consist of sterile fantasy, in part at
least. Or finally, it may be responsive to social pressure only by
casting its response into a form congruent with that of the idols of
the theater of a superseded time. Besides these dangers, there are

others arising from the attitude of detachment that in its first intention is only provisional. Philosophical thought that tries to furnish a genuine and sympathetically enlightened response to the requirements of one age and that grapples with its dominant problems may be carried by a sort of inertia of its own to a point far removed from the actualities of its source or of its contemporaneous setting. It must abstract from the concrete flux of life; but it is perilous to forget to re-enter it. Its problems are formulated, its methods of procedure devised. But these preparatory measures that involve a temporary and instrumental aloofness may become confirmed as a relatively lasting aloofness. A certain hardening and callousness sets in and its sensitivity to the life that created it is diminished. An independent world of reflection is created, and thought lives and moves in this detached sphere. Philosophy thus is in danger of becoming an exclusive cult. One is reminded of the present virtual detachment of art from the common life as compared, let us say, with its intimate union with that life in Renaissance times. When this exclusiveness and seclusiveness becomes characteristic of philosophy, its successive systems manifest a higher continuity just because their excessive sequestration makes philosophical pursuits so largely a process of dovetailing systems and pushing still further preceding analyses and syntheses. But the world of life and deed has meanwhile forgotten its ancient needs and devices in the face of new difficulties provoked by new combinations of forces not even foreshadowed in that former time. While waiting for the elucidations of philosophers, some compromise has been perforce accepted, and somehow or other the world has in ungainly fashion passed around and beyond the former obstacle and turned its attention to the new, with the philosophers lagging in the rear.

There is accordingly less reason for wonder, when these matters are borne in mind, that philosophy should continually be open to the charge of irrelevance, pedantic ossification, and unserviceability. The world seeks the consolations it desires in other ways, in religion or in art, or more probably falls victim to hare-brained but well-advertised doctrines that are "all the rage." In such a situation the philosopher is puzzled by the world, and the world a great deal more puzzled by the philosopher. The latter can not meet the world and lend it assistance without something of a rupture with the philosophical past.

Our histories of philosophy, however, have been largely responsible for making that rupture with the past so difficult. The obstructions to fruitful philosophical activity, it will be generally admitted, have existed at times, if not always. What is not so generally recognized is the rôle of the histories in perpetuating and con-

firming such obstacles. This is the reason why past modes of writing the history of philosophy should be discarded. The aberrations and irrelevances of philosophical thought, both historical and contemporary, are not recognized because the works do not reveal concretely the history of ideas. Conformity with the portrayed trend of history and astuteness in effecting a skilful junction of one's speculation with that trend, comes to be more of a test of the success of a philosophy than its relevance to the life about it and its fruitfulness in the guidance and enrichment of that life. The histories of philosophy do not adequately reveal how germane ideas may have been to the age in which they flourished, the limitations involved in this quality, nor how speedily they lost that quality after they had become abstracted from their several original settings and confirmed as zealously guarded traditions in a cloistered mental life. We fall into the two-fold error of regarding as sheer abstractions and perversities ideas that were concretely validated and accepted in their times, and, on the other hand, of regarding ideas that had grown to be abstractions—mere side-shows of the intellectual circus—as a preordained movement of thought. The problem concerning the number of angels that could dance on the point of a needle may leave us to-day coldly indifferent. It would be well, however, if histories of philosophy were to show how and why the problem was once real and pressing. But not merely that. It would be helpful to learn how the problem ever became a matter of indifference—and then to take the lesson to heart. A history of philosophy that is neither an *a priori* organization of the materials, nor a handbook of facts, and is not, finally, a diffuse literary history of culture, should serve to mitigate these evils. It should help to free philosophical thought from over-respect for the past, to provoke a more forward-looking manner of thinking, and make history an aid and not an obstacle in the pursuit of wisdom.

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“DUALISM IN ANIMAL PSYCHOLOGY”

IT can not be often that a critic gives so much pleasant stimulation to the “critickee” as Dr. Grace de Laguna has given by her discussion under the above title in the issue of this JOURNAL dated November 7. I am well aware that my views need philosophical overhauling, since the habit of philosophical analysis has too long been laid aside by their author; and I have only gratitude for the philosopher who is kind enough to give them expert attention.

The difficulty which I find in fully profiting by Dr. de Laguna's criticism is that of understanding her own position. She rejects both the dualism of *The Animal Mind* and the "mechanistic behaviorism" which that dualism opposes; her own form of behaviorism is not as yet clear to me. Since she doubtless wrote her article in order to present just this conception, and since she usually writes with great clearness, my difficulty is no doubt due to my inexpertness in handling philosophical categories; but still it exists.

Dr. de Laguna's arguments against the view that in animals and in man there exists an inner aspect to behavior, an aspect which is directly accessible only to the introspection of each individual but whose nature may be inferred by other individuals on the principle of analogy, do not convince me any more than behavioristic arguments have ever convinced me. One of the points she urges is that all experimental investigation of alleged subjective states of mind involves standardizing objective conditions, and that "the phenomena thus investigated become in effect functions of the factors constituting the standardized conditions of the experiment." As the dualist would not hesitate to admit that subjective phenomena are functions of objective conditions, he would evidently fail to appreciate the force of this objection. He would, of course, maintain that some of the objective conditions of a psychological experiment, such as for instance the play of cortical associative tendencies, may best be ascertained by means of their subjective accompaniments as revealed by the subject's introspection. Nor would the dualist realize why Dr. de Laguna needed to occupy a page in showing that in actual procedure and in results the studies of a dualist and of a behaviorist in the field of comparative psychology are identical. Since we can obtain no introspections from animals, such a statement would appear to be self-evident: it is the interpretation of results that differs for the two types of workers.

It is in considering another argument of my critic that I feel the need of a better understanding of the position which she would have me substitute for that of dualism. She urges that the psychologist would never have reached the conception of anger, for example, as a distinct type of experience, on the basis of introspection alone; he would have been prevented from so doing by the fact that the term covers feelings and experiences that are subjectively different. "Cold still anger is a somewhat different feeling from hot passionate anger." Upon what basis, then, can such a conception be reached? There would seem to be two possibilities, so far as I can see. Either (1) anger denotes a series of behavior phenomena that are always called forth by the same objective conditions, or (2) it means a series

of behavior phenomena that always produce the same objective results, under which head their effect on an outside observer may be classed. But it is clear that on the one hand anger is called forth by very different objective conditions in different individuals, and on the other hand that it looks very different to an outside observer when noted in different individuals. I do not see where the behaviorist has any advantage here over the dualist, who says that "anger" means a class of experiences which, while they differ in the same individual at different times, all have certain common elements observable by his introspection; and that similar elements may be inferred to be present in other persons whose behavior shows certain resemblances to his own behavior when such feelings are present in his consciousness.

When Dr. de Laguna turns upon the behaviorists, and declares that even the dualistic arguments are preferable to "mechanistic behaviorism," I still fail to understand what her own non-mechanistic behaviorism is. She quotes with approval, as against the mechanistic behaviorists, my statement to the effect that if a physiologist could observe the nervous process that occurs in my cortex when I see red, or the contraction of the muscles that occurs when I say "red," he would observe nothing red about either. Now I meant to imply by this statement that red is something other than behavior: that it is essentially a subjective experience. Dr. de Laguna seems to mean, by approving the statement as opposed to mechanistic behaviorism, that there exists a form of behavior which is not either nervous action or muscular action. I can not guess what behavior, so interpreted, is.

Nor does the following passage enlighten me. Why, Dr. de Laguna asks, can not the behaviorist "assert of the subject's red, as the physical chemist asserts of the electrical charge of the ion, that it is a function of directly observable phenomena; in this case, of discriminative responses to a set of standardized conditions?" Indeed he can, I would reply, and so can the dualist. But the dualist has an advantage over the behaviorist in recognizing the fact that the subject's red can not only be inferred, but directly observed (by the subject himself). When the behaviorist says that my consciousness of blue is effectively only my movements when I say blue, the dualist replies, "It is true that these movements are all that you, another person, can react to when I get the sensation blue. But I can react either to my sensation blue, or to my own movements of reaction which you observe: I can observe them also, and my reaction to the sensation blue in my consciousness is something quite unlike my reaction when I observe my own reactive movements. Therefore,

judged even by the standard of their effects on the outside world, my sensation blue and my reaction to that sensation are two different phenomena." This argument, it seems to me, disposes of the ordinary behaviorist on his own ground: what effect it has on Dr. de Laguna's behaviorism I do not know, because I do not understand what her type of behaviorism really is.

MARGARET FLOY WASHBURN

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DOCTRINAL FUNCTIONS

PROFESSOR Keyser's article with this title¹ is so illuminating and so completely confirms certain suspicions I have long entertained, that I am tempted to draw some further corollaries from his doctrine, and to ask him whether they would not meet with his assent.

1. If, as he shows, a "postulate-system" requires interpretation and admits of more than *one*, and is therefore to be regarded as a "doctrinal function" of which the variables may be filled up variously by various persons, may we not trace this state of things elsewhere than in mathematics? Will it not follow that *any* "doctrine" which is laid down dogmatically or hypothetically but is capable of various interpretations, is in truth a "doctrinal function." In particular, is it not manifest that the various philosophies and religions are preeminently doctrinal functions? They are assuredly "postulate-systems" in their genesis, which are believed and declared true long before they are proved. They are built up mostly of value-judgments and "presuppose" some essential dogma which is an article of faith, though it is usually *camouflaged* as an "ultimate demand of reason." They always contain, moreover, "one or more undefined terms" (generally *more!*), as well as "at least one *element*, that is to say a thing or a substantive as distinguished from a relation." Moreover the great variability exhibited by philosophies and religions is well accounted for by their being "postulate-systems;" while the great variety of interpretations put upon an established system, like Idealism, Realism or Christianity, is natural enough if they are really "doctrinal functions," to which each believer can give the values most pleasing to himself. What is true of religions and philosophies applies also to political creeds and catchwords; they too are plainly "doctrinal functions."

2. Are there not a large number of persons many or all of whose beliefs are habitually "doctrinal functions?" For the meaning and value they attach to them appear to vary considerably with their circumstances, moods, temper and state of health.

¹ In this JOURNAL, XV., p. 262.

3. I was not a little delighted to hear from Professor Keyser that, unlike a "proposition," "a propositional function is neither true nor false," because "it is always possible to select such constants as will, if substituted for the variables of a given function convert the latter, not into a proposition, but into nonsense."

This appears to me to be profoundly true, and to be applicable to the whole of *pure* mathematics. There is not, properly speaking, any mathematical *truth*, because all mathematical doctrines are "doctrinal functions," capable of an infinity of applications true and false, significant and nonsensical; and, until the mathematical formula is actually *applied*, *i. e.*, *used*, nothing can be predicted about the value or validity of the interpretation put upon it and the values assigned to its variables. This may perhaps be made sufficiently clear by a very elementary illustration. If the formula " $2 + 2 = 4$," which is usually regarded by philosophers as an "absolute truth," is in reality a doctrinal function, it will be possible to apply it to cases such that the resulting "propositions" will be (a) *nonsense*, and (b) *false*. Accordingly we *can* apply it to disparate entities and demand to be told what sum results from the addition of 2 caterpillars to 2 virtues? Common-sense will of course correctly answer that the problem is nonsense, because the entities to be summed are not comparable for any rational purpose. Nor again can the question "What will 2 lions added to 2 lambs make?" be answered truly by "*four*." The lions will no doubt make a meal; but this answer is not arithmetical, and the arithmetical formula has proved inapplicable. In short, before we can infer that $2 + 2$ make 4 in any application we have to be reasonably certain that the case is such that the entities concerned may be treated, for our purpose, as homogeneous units.

Furthermore, the principle that a formula is only a "doctrinal function" in its "pure," abstract, or unapplied state, applies far beyond the range of mathematics. Indeed it seems to hold universally. There appears to be *no* doctrine whatsoever which it is not possible, with a little ingenuity, to reduce to *nonsense*, if it is taken merely as a verbal formula and without regard to the meaning sought to be conveyed by its means in a definite situation by a definite person. Similarly it will be found that such a formula may always have a value assigned to its terms which will yield a *false* proposition.

That this has not altogether escaped the notice of all philosophers I have endeavored to make clear in my article on *Aristotle's Refutation of Aristotelian Logic*.² I there showed that Aristotle (on occasion) was aware that a general rule may be true in the abstract (*ἀπλῶς*) when unapplied, and yet may fail to apply, or be falsified, in

² In *Mind*, N. S., No. 89.

a special case. The great example of this principle, which has forced itself on the notice of mankind, is the breakdown of ethical rules when they encounter the difficulties of casuistry. It is not apparently possible so to formulate any ethical rule as to confer on it a prophetic adjustment to the circumstances of special cases sufficient to decide them aright in advance, or even to be felt by the best moral sentiment to have any significant application to them at all. "The noble death of Cato" does not fall under the rule against suicide, any more than Regulus's return to Carthage or Socrates's refusal to escape from the city that was bent on "sinning against philosophy," while only a moral pedant would refuse to celebrate with the poet acts like that of Hypermnestra, *splendide mendax, et in omne virgo nobilis aevum*. This impossibility of fixing, in advance of the facts, the rule to be applied to the case is the reason why any applicable system of ethics is always careful to leave the ultimate decision of the right thing to do to the intelligent moral judgment of someone who knows the particular circumstances of the case.

Now the inferences I would draw from this situation are two. (1) There are *no* rules which can be pronounced *absolutely* true, no truths which are strictly universal: those so called, which are common enough, are true in general (*ἀπλῶς*), and their "truth" does not preclude failure and falsity when they are applied to the wrong sort of case. (2) There are no rules, "universals," "principles," *etc.*, which do not get their real meaning from their application to cases; and as this application has always to be made by some one who wishes to use them, real meaning is always personal. If they are taken in the abstract, the "meaning" that clings to them is merely verbal "dictionary-meaning;" because in Professor Keyser's phraseology they are only "doctrinal functions." The application of these two corollaries to philosophic controversy would, I am sure, greatly accelerate philosophic progress, by clearing away great masses of pseudo-problems and enormously simplifying those that remained.

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OF OUTER-WORLD OBJECTS

IN a previous issue of this JOURNAL¹ I have called attention to the well-recognized fact that, if some special characteristic x is frequently noted as inherent in a frequently observed experience A ; then where there is given a less frequently observed experience B in which this characteristic x also inheres, the remainder of the more

¹ Vol. XV., No. 23, pp. 627 ff.

frequently observed experience *A* tends to be revived as an image, and this image becomes part and parcel of the total of the less frequently observed experience *B*. And I there noted that in such cases we tend to interpret the less frequently observed experience *B* in terms of the more frequently observed experience *A*. If we perceive a round, properly shaded, piece of yellow paper, we are likely to say "what a clever representation of an orange." Were round, shaded, pieces of yellow paper more common in our experience than oranges, we should say, when we observed an orange, "how much it looks like a round, shaded piece of yellow paper." I shall not repeat the suggestion there made in regard to our assumption that other men have minds like our own. I would ask the reader rather to note that the above mentioned psychological fact may be stated in another way, and to consider certain implications resulting from this observation.

If a characteristic of a given experience *A* is, *after many repetitions*, given in connection with a *new* experiential characteristic *B*, any subsequent repetition of the newer characteristic *B* will tend to carry with it a very marked revival of the often repeated characteristic *A*. Thus it is that the sight of a round, shaded, piece of yellow paper reminds us instantly of an orange, while the sight of an orange does not commonly remind us of a round, shaded, piece of yellow paper.

I presume it may be assumed that the human babe, at the moment immediately following its birth, is a conscious being. Its consciousness may be exceedingly vague and chaotic, but it will be generally agreed, I imagine, that it is sufficiently developed to involve a differentiation of characteristics. Were it not, we should not find ourselves attributing to it the ability to discern the difference between sight and hearing which is indicated by the differences of its behavior upon being stimulated by light and by sound respectively.

If we agree that the child at birth is a conscious being of this type, we can scarcely fail to agree that it was a similarly constituted conscious being some hours before birth, and indeed during some months before birth, to look no further back.² Hence it seems clear that the capacity to differentiate characteristics within consciousness, which is so distinctly evidenced immediately after birth, must have existed during these prenatal months.

This differentiation must, doubtless, have yielded the beginnings of the mental characteristic which we ourselves know as the sense of movement; for it is a well known fact that the babe in the womb is more or less active for some time before birth. And beyond that

² Cf. my *Consciousness*, pp. 166 ff.

this differentiation must have yielded the beginnings of the characteristic which we ourselves know more definitely as the sense of resisted movement; for the mother knows that the babe struggles against the walls of her womb. Thus the child at birth will be possessed of a rudimentary differentiation of its consciousness x corresponding with the obstruction of its movements, which, be it noted, has been often experienced. To this characteristic x we may give a name; let us call it the "otherness" characteristic.

The movements of the child immediately after birth, as it is held in the hands of mother or nurse, must yield an experience of this "otherness" characteristic, which has been so repeatedly experienced during its prenatal life. But presently when it opens its eyes, it experiences a quite new characteristic in rudimentary sight. Its very early life will very soon lead to a conjunction of this new sight characteristic with the often prenatally repeated rudimentary sense of movement characteristic, and presently a conjunction with the as often prenatally repeated "otherness" characteristic, which latter will be given anew when its movements after birth are obstructed by what we call outer-world objects. Hence will arise a new differentiation Y , which we may call the "out-thereness" characteristic.

As the "otherness" characteristic has been very frequently experienced, while the sight characteristic has not, the occurrence of the latter will tend to arouse the revival of the former; and the conjunction of the two differentiations will yield the "out-thereness" characteristic. Thus it will very soon come about that each experience of the sight characteristic of a certain definite type will at once result in the re-instatement in marked form of the revival of the "out-thereness" characteristic. In other words, the babe's sight characteristic of a certain type will immediately suggest the possible existence of the "out-thereness" characteristic as it would be if actually experienced. And it will soon discover by its movements that this imaged "out-thereness" is very frequently displaced by actually realized "out-thereness," as it finds its movements restricted in relation to what it sees.

As the result of this, whenever the babe gains a sight experience of the nature referred to it will immediately picture, as an expectation, the possible realization of the "out-thereness" characteristic; and this expectation will be so frequently realized that the babe will soon come to assume a possible "out-thereness" experience whenever it notes the special sight experience under consideration, even though this "out-thereness" characteristic is not in fact realized. Hence it will soon happen that, whenever the special sight characteristic referred to is given, the child will assume the possible existence of

the "out-thereness" characteristic even when it can not possibly be realized. And this assumption will tend to become habitual because its validity will be attested by innumerable experiments.

In the interest of simplicity I avoid all reference to the fixation of this assumption by the correlation of the movement with senses other than that of sight.

When once the assumption under consideration is firmly established, it is not difficult to picture to ourselves the process by which we construct a somewhat that is the ground of this actual or possible "out-thereness" experience; by which, in other words, we construct on its basis the concept of outer-world objects, and of the outer-world as a whole. What I wish to emphasize is this; that we seem to find in the very nature of consciousness itself the basis for the development of this conception of outer-world objects. And it is to be noted that this conception is itself a mental construct quite within conscious experience.

This conceptual assumption, verified as it is by countless experiments, is perhaps the most thoroughly validated of all the assumptions made by the conscious man; and I for one am content to believe that we are fully warranted in holding that the entities thus assumed do really exist. I am concerned here merely to support the view that this belief in outer-world objects is based upon an assumption pure and simple; that the existence of such outer-world objects is purely hypothetical, although the hypothesis involved is as thoroughly verified as any hypothesis ever can be; and that this assumption, and the hypothesis based upon it, are data of our conscious experience based upon a fundamental characteristic of consciousness. This position is strengthened if we view the subject from a slightly different angle.

When one awakens of a morning all that exists for one is a succession of what we, when sophisticated, call "objects-in-the-outer-world;"—bath-wrapper, bath-tub, towel, water-in-tub—let us say. But presently we find in experience water, and then hot; the former of which is an object-in-the-outer-world, the latter appearing to be of a quite distinct nature, and not an object-in-the-outer-world. We describe it as part of consciousness.

Analysis indicates that this distinction is bound up with the fact that the water experience has, and that the hot experience has not, a special characteristic. This characteristic we may call "out-thereness." It is because we have many experiences of this nature that we are led to distinguish between the outer-world and consciousness.

Further analysis indicates that this "out-thereness" quality within experience, in itself, belongs to the grouping which we call

consciousness. It certainly does not belong to that grouping which we call the outer-world.

If we agree that this is correct, it becomes interesting to note that by adding this psychic quality "out-thereness" to some special item in consciousness to which it is not originally attached, we at once transform this item into an object-in-the-outer-world. A cry of distress out of the mist, carrying with it the psychic quality of "out-thereness," at once transforms what I had just thought to be a mere illusion,—a purely mental thing—into a real man in the outer-world.

On the other hand, we at times find in experience objects-in-the-outer-world from which we are able to remove the psychic quality of "out-thereness;" and then we find that the object-in-the-outer-world disappears as such, and forthwith the experience becomes what appears to be merely an item in consciousness. The drunkard sees real snakes; but, if he is not too far gone, we may convince him that he has experienced only a mental state which we call an hallucination. We thus by reasoning, which is a purely mental process, remove the "out-thereness" quality, which is a mental quality, and *instantly* his object-in-the-outer-world becomes an experience wholly within what he calls his consciousness.

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REVIEWS AND ABSTRACTS OF LITERATURE

Liberty and Democracy and Other Essays in War-Time. HARTLEY BURR ALEXANDER. Marshall Jones Company. 1918. Pp. 229.

This collection of essays was "written, from time to time, under the impulse of events, and for contemporary reading. They can not, therefore, pretend to either system or consecution, and they undoubtedly contain repetitions, not only as between the several essays, but of matters that have been frequently and better expressed elsewhere. . . . True, there is here no constructive, no reconstructive programme. But the hour calls for diagnosis."

I select three points which seem to me to express the burden of the book: 1. The downfall of traditional democracy; 2. An analysis of the German conception of freedom; 3. A sketch of the lines along which a re-statement of democracy should be undertaken.

The dominant intellectual characteristic of the eighteenth century was its spirit of optimism, an optimism at once romantic, humanitarian and complacent. Its basis was founded on man's trust in reason as an expression of universal law and a faith in humanity

as inherently good. Democracy was born of this optimism. To-day we see its downfall. "I can think of no death in history quite so stupendously bitter as is that which has stricken down the gorgeous humanitarian optimism of the nineteenth century." Why this collapse? Partly because the underlying ideas were never subjected to reflective criticism. Furthermore, the basis of social solidarity and the principles of political unity were entirely subjective and sentimental. Liberty was a thing of ideas, feelings, literature and art. It lacked the machinery of organization for the execution of its ideas; it had no objective basis in institutions. Men attempted to fraternize on the basis of sentiment. As a result there developed a childish romanticism and a *laissez-faire* philosophy.

Germany, on the other hand, developed a tyrannous institutionalism. "The institution of feudalism was Germany's first gift to European civilization." The structural principle of feudalism is not liberty, but loyalty. The individual occupies no status as an individual, but derives his status by virtue of his relation to one higher up. Every man is some other man's man. This leads at once to the cardinal German virtues of system, organization and efficiency, involving a régime which is mechanical, non-human and impersonal. "A machine has all of the devices of a rational purpose, but none of its soul. . . . It is an efficiency destitute of that adaptability of means and idealization of ends which is the humane essence of true reason."

If democracy, lacking an objective basis of control, has been drifting toward anarchy, autocracy, in its glorification of authority, has tended toward tyranny. What is needed is an analysis of the concept of liberty, a liberty which will be more than a sentiment and less than submissive loyalty to an established institution. "But while it is easy to see the fault in what we would avoid, it is not so easy to discover the virtue of what we prize. The essence of liberty is illusive of analysis, possibly because the thing itself is so passionately a part of the colour of life." There follows, therefore, no complete analysis of liberty, but the lines along which it should be undertaken are indicated. Freedom means man thinking; it is, therefore, a characteristic of reason and not of feeling. The exercise of reason involves both freedom and control. The two are not hostile elements set over against each other, but supplementary phases of developing experience. Having connected liberty with rational choice, involving both individual initiative and responsible submission to the material conditions of thought, "it follows inevitably that reason must be sought not in collectivistic states, but in democratical states, where liberty and individualism are prized."

M. T. McCLURE.

Experiments in Psychical Research. JOHN EDGAR COOVER. Stanford University; University Press. 1917. Pp. xxiv + 641.

It was inevitable that such a work as Coover's *Experiments in Psychical Research* would be written. At first sight it is surprising that it was not written before. For nearly forty years organized societies of large membership in both Europe and America have carried on propaganda for the scientific investigation of the occult. Substantial rows of volumes containing their published reports attest convincingly to their vigor and perseverance. But, unfortunately for the advancement of scientific knowledge concerning the problem of psychical research, their industry was rarely matched by the adequacy of their methods of investigation. Indeed one may seek long in these voluminous reports to find little of the precision, exactness, rigid control of conditions and thorough command of psychological technique which so richly characterize the present work.

The first and most extensive group of experiments reported by Coover is concerned with thought-transference. The problem was attacked repeatedly and from a variety of angles. One series of experiments was performed to see if the ideas or images of lotto-block numbers from 1 to 100 could be transferred from one mind to another. A second series of experiments was performed to test the truth of the popular belief that people can tell, in the absence of the ordinary means of perception, when they are being stared at. A third and most extensive series was performed to determine whether ideas or images of ordinary playing cards could be transferred from one mind to another. Reputable mediums supposed to have special psychic and telepathic power, as well as individuals presumably normal, were used as subjects. In all, the attempts at thought-transference amounted to nearly fifteen thousand.

The series of experiments in which the "psychics" were used as subjects are typical of the general method used in the experiments on thought-transference. The medium sat in the laboratory at distances varying from one to ten meters from the experimenter, her back to him and her eyes closed. She placed her mind in an attitude favorable for receiving telepathic impressions. The experimenter shuffled a pack of playing cards, cut them and chose the bottom one. Before looking at it, however, a die was thrown. If an odd number of spots came up he proceeded to image the card in one of three ways according to whether the die showed one, three or five. If an even number came up, however, the card was not looked at until after the subject had recorded her impressions. From these data it was possible to compute the number of right guesses which would result by pure chance, together with the possible varia-

tion of empirical from theoretical chance under the particular circumstances. Any excess of successes over this must be due in the case of the even throws to clairvoyance, in the case of the odd throws to telepathy or clairvoyance or both. It would be relatively easy also to determine which distances and which types of imagery were most favorable for telepathic transmission. Ten different psychic subjects were used. The most elaborate statistical analysis of the results obtained from them, however, failed to reveal any such excess of successes. Equally negative results were obtained with the normal subjects. In fact neither in this nor in any of the other experiments on thought-transference was there found the slightest trace of telepathic or clairvoyant power.

As a check on the accuracy of the methods used above, a series of experiments was performed in which at certain throws of the die the card was so held that it could be seen faintly reflected in the experimenter's left cornea. The subject sat in a position where he could view the reflection when present, through a laboratory telescope. It was found that the proportion of successes on these particular throws ran far ahead of chance, while the other throws remained consistently at the level of chance as in previous experiments.

Repeated attempts were made to continue the telepathic experiments with a semi-professional trumpet medium of international reputation. The experiments were conducted in a totally dark seance chamber while the medium was in a state of trance. It was found that the voices "who could report the safety of relatives in Mexico and could define the attitude of Japan toward the quarreling republics, could not after months of effort bring themselves to naming the cards. They could see the cards and they had the power of speech but they became completely exhausted when they tried to coordinate these two powers." A telegraph key was pressed repeatedly by "spirits" until printer's ink, which had been spread on it, was found later smeared on the medium's hands and on the trumpet. By appropriate methods graphic records were taken of the vocal organs of the medium while the voices were speaking through the trumpet. The records revealed movements on the part of the medium such as would take place if the medium herself were doing the speaking.

Important series of experiments are also reported on the perception of subliminal visual and auditory impressions, which throw light on certain seance phenomena. A similar function is performed by other experiments which reveal a strong tendency for more or less meaningless auditory syllables to be interpreted as meaningful discourse. There is an exhaustive treatment of number

habits and their relation to certain number guessing experiments in telepathy, and an excellent exposition of theoretical as related to empirical chance. In connection with the various experiments valuable critical summaries are given of similar work previously done. There is an illuminating account of the sequels to a number of experiments which have been alleged as proving thought-transference. The volume concludes with a most complete bibliography of works related to psychical research.

In our appreciation of this work we should not overlook the one who made it possible. Some years ago Mr. Thomas Welton Stanford, of Melbourne, Australia, endowed Leland Stanford University with £10,000, the interest of which was to be used in psychical research. Thus was Professor Coover enabled to produce this monumental work. Thanks to the generosity and wisdom of Mr. Stanford, Professor Sedgwick's remark that, so far as he could see, psychical research had made no discernible progress in the last twenty years, is now no longer true.

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JOURNALS AND NEW BOOKS

THE AMERICAN JOURNAL OF PSYCHOLOGY. July, 1918. *An Experimental Study of Mixed Feelings* (pp. 237-271): PAUL THOMAS YOUNG. - Pleasantness and unpleasantness are not felt simultaneously. Mixed feeling are really rapid alterations, doubt, or interruption. *The Human Mind* (pp. 272-290): HENRY JONES MULFORD. - The genetic viewpoint is emphasized. Brain is made the basis of mind. Mental development is measured in terms of brain development. *Æsthetic Unity* (pp. 291-315): MARGARET OTIS. - The factors of position, form, color, direction and size were considered in the unification of groups of figures. *Some Variabilities and Correlations in Learning* (pp. 316-326): GARRY C. MYERS. - The first few ranks in performances of a task are very much the same as the ranks after practise. *Minor Studies from the Psychological Laboratory of Vassar College. A Further Study of Freshmen* (pp. 327-330): MARGARET MONTAGUE, M. M. REYNOLDS, and M. F. WASHBURN. - The reading-backwards test and verbal-memory test are given a fair index to probable academic success. *Further Tests of the Verbal Ability of Poor Spellers* (pp. 331-332): MARGARET E. COBB, MARGARET KINCAID, and M. F. WASHBURN. - Good spellers have greater verbal ability than bad spellers. *Experiments on a Possible Test of Æsthetic Judgment of Pictures* (pp. 333-336): JUDITH

CATTELL, JOSEPHINE GLASCOOK and M. F. WASHBURN. This is a study of a group of pictures by the order of merit method. *Minor Studies from the Psychological Laboratory of Cornell University. The Psychological Attitude of Charles Dickens toward Surnames* (pp. 337-346): E. DELASKI. — Dickens's names are of English origin and in most cases descriptive. *Notes on the Presidents of the American Psychological Association* (pp. 347-349): CLYDE B. MOORE. — This study gives the age, degrees and place of birth of the presidents of the American Psychological Association. *Book Notes* (pp. 350-353): Felix Adler, *An Ethical Philosophy of Life, Presented in its Main Outlines*. Joseph Alexander Leighton, *The Field of Philosophy; An Outline of Lectures on Introduction to Philosophy*. Joseph Jastrow, *The Psychology of Conviction; a Study of Beliefs and Attitudes*. Frederick Bligh Bond, *The Gate of Remembrance. The Story of the Psychological Experiment which Resulted in the Discovery of the Edgar Chapel at Glastongury*. Charles S. Gardner, *Psychology and Preaching*. Hereward Carrington, *Psychical Phenomena of the War*. M. Luckiesh, *The Language of Color*. E. Baudin, *Cours de Psychologie et de Philosophie*. Lewis M. Terman and others, *The Stanford Revision and Extension of the Binet-Simon Scale for Measuring Intelligence*. Rudolf Pintner, *The Mental Survey*. Robert Sessions Woodworth, *Dynamic Psychology*. Wilfrid M. Barton, *Manual of Vital Function Testing Methods and Their Interpretation*. Ferdinand Morel, *Essai sur l'introversiion mystique; étude psychologique de pseudo-Denys l'Areopagite et de quelques autres cas de mysticisme*. Edward Safford Jones, *The Influence of Age and Experience on Correlations Concerned with Mental Tests*. Franklin C. Paschal, *The Witmer Cylinder Test*. Agnes Low Rogers, *Experimental Tests of Mathematical Ability and Their Prognostic Value*. Rudolf Pintner and Margaret M. Anderson, *The Picture Completion Test*. Eugene A. Nifenecker, Assistant Director, *Report on Some Measurements in Spelling in Schools of the Borough of Richmond, City of New York*. Leta S. Hollingworth, assisted by C. Amelia Winford, *The Psychology of Special Disability in Spelling*. H. B. Wilson, *Training Pupils to Study*. Darwin Oliver Lyon, *Memory and the Learning Process*. Charles H. Rieber, *Footnotes to Formal Logic*. Anton Chekhov, *Nine Humorous Tales*. (Tr. by Isaac Goldberg and Henry T. Schnittkind.)

Hocking, William Ernest. *Morale and Its Enemies*. New Haven: Yale University Press. 1918. Pp. xv + 200. \$1.50.

Kallen, Horace M. *The League of Nations, Today and Tomorrow*. Boston: Marshall Jones Co. 1918. Pp. xx + 181. \$1.50.

Lord, Herbert Gardner. *The Psychology of Courage*. Boston: John W. Luce & Co. 1918.

NOTES AND NEWS

According to the *Rivista di Filosofia Neo Scolastica* the philosophical journals have suffered severely from the war. Most of those published in English, however, continue to appear. The *Revista* receives regularly *Mind*, *Philosophical Review*, *International Journal of Ethics*, *Journal of Philosophy*, *Psychology and Scientific Methods*, *Psychological Bulletin*, *Psychological Review*, *Archives of Psychology*, *American Journal of Psychology* and *The Monist*, and nearly all of them have the normal number of pages. Only the *Journal of Experimental Psychology* has discontinued.

Of the French reviews there remain only the *Revue Philosophique* and the *Revue de Métaphysique et de Morale*.

Among the Italian journals *Cultura filosofica*, edited by Professor De Sarlo, has been discontinued and the next number indefinitely postponed, with which, however, a new series will begin.

The office of the *Revista di filosofia* has been transferred from Turin to Rome, and E. Troilo is again its editor. Associated with him are E. Buonaiuti, Faggi, Juvalta, Levi, Marchesini, Pastore, Valli, Varisco and Vidari. The numbers are, however, somewhat reduced in size. A few months ago the editor published a sort of financial statement to show that the readers of the chief official organ of Italian philosophy are not very numerous; a recent statement adds that publication is continued through the aid of its friends.

The *Critica* of Benedetto Croce appears regularly, and the *Rivista Rosminiana* at irregular intervals.

The Spanish reviews are all keeping up.

With regard to the journals devoted to scholastic philosophy, the *Revue Thomiste* has just begun to appear again. The *Revue de philosophie* has not yet been resumed. And of course the admirable Belgian reviews are extinguished. The *Philosophisches Jahrbuch* appears regularly, as well as *Ciencia Tomista* and *Razon y Fè*.

Dr. ARTHUR O. LOVEJOY, professor of philosophy at Johns Hopkins University, was elected president of the American Association of University Professors at the meeting recently held in Baltimore.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

IMAGINATION AS A FACTOR TOWARDS TRUTH

THERE is perchance nothing that would surprise Hegel as much in contemporary philosophy as the decline of the influence of his own teaching. This need not be ascribed entirely to egoism, or to lack of historical perspective, for his amazement would continue, and perhaps increase, were he informed of the objects and enthusiasms of much of our thought. Sobermindedness, precision, the desire to see the world as it is, and to record it as such—these are the objects of our own day, and Hegel would doubtless claim a share in them. Certainty, definite certainty, is our aim; and certainty, absolute certainty, is what he desired.

The variation, slight though it appear, is, of course, the fundamental difference, the unbridgeable chasm between us. The achievement of absolute certainty was the passion, as well as the objective, of Hegel's system; to James it seemed unattainable; to many contemporary thinkers it seems undesirable, uninteresting. The change may be an instance of sour grapes—perhaps having discovered that *the* truth was not to be ours, we have found in relative truths values and delights which do not really appertain to them. Be that as it may, the change has necessitated a more complete break with the past, and with philosophic tradition than James ever envisaged. Thought has been brought down to earth to operate on things earthly, and there to find its fruition. Having determined that it was not for us to know Heaven, it has been decided that Heaven was not for us. Having discovered that *the* truth was undiscoverable, it has been decided that it was not there to be discovered. Having abandoned epistemological discussion as futile, since its problems were unreal, the pragmatist has tended to pursue a policy of negating metaphysics. He has found a genuine and an abiding satisfaction in investigating and attaining values of a more immediate variety. And he has come to regard absolutistic thought as a museum exhibit, of philosophical paleontology, interesting only to a few, and has preferred to recover philosophy for a modern world by dwelling in modern wisdom and living fact.

Problems which interested William James, though he believed them to be without solution, seem to leave his descendants uninterested, and at times disgusted. Perhaps they are, as we have seen, too busy with more pressing, more important problems to give much thought to "the meaning of truth;" perhaps the answer has been found in denying its existence; perhaps—but probably the vocabulary has changed so completely that the problem which could never be answered, can not now even be presented. At any rate, it is certain that no contemporary pragmatist would or could vouchsafe us an answer to James' self-imposed query "What kinds of things would true judgments be, in case they existed?" or claim with James that "the answer which Pragmatism covers is intended to cover the most complete truth conceived of, absolute truth, if you like." The question has no meaning for him, nor would he want his answer to have reference to things which do not exist. It is sufficient if they cover specific cases, if they have application to the data in hand—this they must do, and no more. Indeed, more is impossible.

I do not mean to imply that the basis of pragmatism has changed in any inherent respect. Though the interest in the meaning of truth has faded to nothingness, the accepted meaning of truth remains the same. To quote James once more, true ideas have always been those "which we can assimilate, validate, corroborate and verify," and their truth merely "means their agreement as their falsity means their disagreement with reality." Yet in so defining truth—and though they do not appear to worry about *the* truth, our contemporaries would, I imagine, define the term essentially this way—we are really expressing a platitude. To assert the relationship of truth and reality and to use such an assertion for purposes of definition, is, it may be argued, somewhat disingenuous. For within this relationship there is such a wide variation possible, due, perhaps, to the very uncertainty inherent in the word reality, that we have hardly penetrated the difficulty, and certainly not illuminated the problem. To say that what is real is true is startling neither as an heretical nor as an orthodox definition. It is startling only when we begin to realize that by so defining truth we have involved ourselves in the meshes of ontology. But we need not so naively walk into the spider's parlor. Though we will have occasion later on to consider one phase of what reality is to man, as an active and imaginative being, we may for the present accept James' definition of truth, and employ it as a criterion in judging philosophic enterprise.

But though we can judge the truth and the falsity of all philosophies by the simple criteria which this definition suggests, we may profitably stop for a moment and question whether this is a wise and an honorable method of judging philosophy. If, as Professor Wood-

bridge has suggested, we are to estimate philosophies not by their truth but by their power, is not a consideration of their truth or their falsity irrelevant? Is it not worse than superfluous to give a moment's consideration to their factual strength or weakness? Though our Puritanical instincts warn us to heed them and to apply our yardstick test, even though the scale be variable or uncertain; though our literal-mindedness persuade us that it is difficult to believe that which we know to be false, we yield to this generous impulse. Not by their truth, but by their power! Yes, it is not an easy doctrine, but its rewards are great.

And yet how could we apply it to a man like Hegel? It is easy to judge Plato by this measure, for poet-like, he put his state, his love, his friendship, his everything in Heaven, though he saw their natural bases in Athens. It is easy to judge a mystic by this scheme, for his vision is not of this world, but of another, though he live here with the rest. It is easy to judge all in this way whose philosophies are but an attempt to conceive a universe. But what of Hegel, who is not content with such activity, but preferred to act as recording angel to a spirit which was all-inclusive, and for whom the factitious world supplied an important testimonial? It is easy to judge those philosophies by their power which find their natural basis in this world, if but their fulfilment be truly ideal; but what of the system which makes its basis ideal and its fruition and manifestation natural? Must we not consider its truth as well as its power if we are to see in it aught but a futile, albeit an eloquent, attempt to fit the actual into an ideal and unrelated frame?

It may appear that the distinction between a philosophy with a natural basis and an ideal fruition, and one with an ideal foundation and aiming at a natural fulfilment is somewhat arbitrary. But I think that the antithesis is fundamental and real. To be sure, an ideal of any variety has some, albeit a remote, relation to actuality, and many philosophies aim at an ideal realizable in turn in the world of facts. In so far the two are similar, and may be subjected to similar tests. But we must remember that we are accustomed to judge a philosophy by its fruits, whether real or fancied. Fancied fruits, poetry in short, are, as we have seen, properly judged by their power, by the conviction which they carry. And on the other hand, a programmatic system of thought is rightly judged by its adequacy in specific situations. This variation of criteria on which to base a judgment applies equally well to the basis of thought as to its fulfilment, though for obvious reasons we insist on it with far slighter emphasis. For though a natural basis admits of criticism solely on questions of truth or falsity, this is not stressed since, being natural, it is held to be *ipso facto* true. Conversely, a system

founded on an ideal basis implies ideals sufficiently powerful to stimulate and fortify thought, so that the basis itself is but seldom subjected to this criticism.

A division of this type will result in strange combinations, and will group together systems which can not be associated on any other principle. Platonism, mysticism, all philosophies which contemplate Utopias, be they of this world or another, varying widely in their contact with the natural order and differing fundamentally in their appeal, all these we must classify together by reason of the fact that their goal is ideal rather than natural (though in some cases it may be achieved in fact as well as in fiction), and all will be judged by the common principle of their power and appeal. On the other hand, all philosophies which attempt to apply an ideal to the actual—whether this ideal be derived directly from the natural, or be more or less independent in its origin—which are programmatic in character, will be grouped together and judged primarily by their conformity or lack of conformity to the world and the facts which they pretend to describe. This will include all empirical and all pragmatic systems, and it will also include Hegelism.

Exception may be taken to the fact that I have included Hegel's philosophy in a category whose basic characteristic is programmatic intention. It may perhaps be argued that only a philosophy which aimed at the comprehension and the control of its environment and which formulated a description and a method or plan for influencing it, could properly be designated programmatic, since it alone attempted to give reality a conformity to the circumstances and conditions which it had envisaged in its ideal. And as a postulate to our former arguments only a philosophy of this variety need submit to examination as to its truth or its falsity.

An analogy may illuminate the problem. Let us suppose ourselves at a concert and in the possession of the concert programme. We read the names of the selections, and of the artists—the plan for the evening's entertainment. To judge the programme's validity we must compare the printed list to the actual performance—if they coincide the programme was accurate, descriptive, true; if they vary the programme was inaccurate fictitious, false. Now let us suppose ourselves in the possession of another programme, say one of a performance which we did not witness. It remains a programme though it is a plan of something past, and it is subject to the same tests and judgments as the other.

In this latter sense at least the Hegelian system may also be described as programmatic. It shares some of the characteristics of the former too, since it implies, if it does not always state explicitly, the nature of future events. This was inevitable since the account,

the programme, which Hegel presented aimed at being a description of eternity, as well as a history in time. It therefore has the advantage, or the difficulty of enabling or requiring verification as a history and as prediction. But in both instances the verification will depend on its truthfulness. Hegel was attempting, as we have seen, to apply a theory in order to explain reality, to superimpose on actuality an ideal structure. Therefore it is by the truth rather than by the power of this thought that we must primarily judge him.

It is neither requisite nor pertinent for me to inquire into the individual fallacies and factual errors of the Hegelian system. I have not the ability to do so, nor would much be gained by a campaign of this sort. It may not be taken amiss, however, if I turn my attention for a mere moment to what, I think, may be considered the fundamental fault of this system from the point of view of facts—i. e., a mistaken psychology. The traditional psychology of the early nineteenth century was based on the division of reality into ego and non-ego which found its rise in the Cartesian philosophy. This is the basic argument of the system, the assumption which underlies the whole theory that makes knowledge a mental picture, a more or less perfect reproduction of an objective world existing independently, and apart from it. Thus distinction, as we know, gave origin and meaning to the epistemological excursions of the preceding century. But to contemporary psychology which recognizes only one possible division—and that a somewhat artificial one—between man and his environment and which sees in mind a biological phenomenon, a factor in nature, an instrument to control and to alter it—such a psychology and a philosophy recognizing it can find little meaning in the discussions of realism *vs.* idealism, rationalism *vs.* empiricism. It can not enter them for it speaks another language; it grows impatient with them, for it sees that they are futile since their problems are unreal. I may be pardoned if I enter into a further brief digression.

This behavioristic psychology, which repudiates as too inflexible the Kantian *a priori* method in experiment with its categories and forms of thought operative unconsciously and unreflectively, and insists that all psychological data must be interpreted with reference to activity, can free itself alike from the theories of traditional rationalism and traditional empiricism. It can eliminate the machinery of the Kantian machine-shop which assumes the truth of the empirical up to a certain point in isolated sensations, and then endows thought with synthesizing qualities through some transcendental *a priori* machinery. And in so doing it makes the rationalistic-empirical controversy largely irrelevant. Similarly, it outlaws the conflict between epistemological realism and idealism. It denies the justice of

both the theory of Kant, of Fichte, and of Hegel that mind in knowing phenomena makes them what they are, and the reaction of the realism which holds the creative factor of mind to be an intolerable illusion, coming between truth and ideas which should be avoided in order to see objects as they really are.

It does all this not so much by solving the problems as by eliminating the classical antitheses between Mind and the World; the Knower and the Known; Consciousness and its Object. Instead it recognizes only one antithesis: that of Man and his Environment, and considers mind as an instrument by which man may control and modify his surroundings, and use natural forces for his own advantage. Consciousness is not merely a mirror, so that the question of a similarity between the two has little bearing. Mind is an instrument of control, a factor in man's activity, and so regarded it leaves no room for traditional epistemological considerations.

To return to Hegel, however, though we may regard this fundamental assumption as a basic error, this is not an ultimate indictment. For after all, as Ganz once pointed out to Schelling, you can not destroy a system merely by refuting specific facts. The method and the principles may remain and may be of enduring value and importance. Nor need you damn Hegel *überhaupt* merely because you lack interest in *überhaupt*s, or find it necessary to denominate Hegelism as absolutely valueless just because you have stopped speaking in terms of absolutes.

What else, it may be asked, can you do about it? You have determined that Hegelism, since it poses as a programme after the fact, must be judged by its truth rather than by its power, and you have seen that it must be rejected as untrue not only in its facts but also in its anticipated goal. What more can be said? To answer this question you must recollect the nature of our definition of truth. I assumed that, though less interested in this phase of the matter, contemporary thought accepted James' account of the meaning of truth; to see why this was the proper criterion to apply to Hegelism and to explain in this light why it has been rejected. For, to quote Royce, himself an admirer of much in Hegel, it can not be disputed "that his system, as a system, has crumbled." This in brief has been the content of the above discussion. Much of it may have appeared irrelevant, and this belief may be accentuated when I say that I do not believe that our definition of truth is adequate for our purposes, or that the whole story has been told when a system has been considered from this point of view.

It will perhaps be not unprofitable, therefore, to give a more careful analysis of in how far human experience justifies the pragmatic reliance on the identity of truth and of fact verifiable in ex-

perience. Such a consideration will lead us, I am inclined to think, to ask whether to speak of poetry as true really means anything; and if we agree, as I trust we shall, that poetry is true, whether this type of truth is the same as the truth that two times two is four. Perhaps we will even have to ask whether all facts are true, or whether facts are merely "so." We may have to ask whether the disproof of the factual basis of an ideal invalidated the ideal, or even deprived it of its truth. And finally, we will have to consider imagination as a factor towards truth. This will perhaps lead us to identify truth in its non-positivistic sense with power, so that we can judge all philosophies by a single standard as soon as we have considered the factitious basis of a programmatic system as to its "so-ness." It will be remembered that we are not invalidating our argument which subjects these philosophies to a test of their facts, but are merely adding thereto this further test, of truth defined in terms of human experience rather than radical empiricism. For us, as for Kant, we may find "*nur in der Erfahrung ist Wahrheit.*" A philosophy, perhaps, could be judged both false and good.

Again it may be necessary to indicate that we have not been inclined to accept Hegelism as true in a pragmatic or scientific sense. There may be some who will regard this statement as callow and superficial, with some justice, inasmuch as I made a slight attempt to substantiate this opinion by a necessary reference to specific fallacies or errors. My only reply to them would perhaps be an appeal to authority. But I will not even attempt a reply; rather I will go on to consider the system from another, and it seems to me, from an infinitely more significant view-point. As a product of human imagination the Hegelian system has had an almost unexampled influence on human imagination, and what will appear more important to some, it has had an influence on human activity which has by no means ceased to exert its force.

It must not be thought that in thus characterizing this philosophy I am endeavoring to cast a prejudicial flavor into my criticism. Imagination is an essential factor in any constructive enterprise, as a matter of fact, which aims to affect the conditions of human activity. This may have reference to an actual transformation or it may only refer to the formulation of a plan or a programme whereby such transformation might be accomplished. In either of these senses imagination is fundamentally a scientific instrument, though only in the former case is the instrument adequately tested. Whenever man acts, and does so consciously with reference to some purpose to be accomplished, he is said to be acting intelligently because he has shown himself to be an imaginative creature. Whenever he thinks, and thinks in terms of a world different from the one in which he

finds himself, but which he envisages as a possible or perchance the only possible outcome of the present world, then he is likewise an imaginative creature. If his judgment is sound, if his prophecy is found to be a correct prediction, then he may be called scientific. It should be evident that I do not believe that Hegel was scientific in this sense, that he had this variety of imagination. My purpose in sketching it was frankly to gain for the imaginative function that sober respectability which is so often denied it. Surely as a scientific instrument no one would deny the respectability of imagination. And perhaps it will be allowed to carry this virtue over into other fields.

For the imaginative function, though it necessarily always operates on the material offered by experience, and in terms provided by experience, is capable of producing results only remotely related to the natural order and of conceiving worlds utterly apart from this world. Such constructions we properly designate as fiction and put them into a new and a separate class. But though they vary it is evident that the products of a common function are related, and that when considered together the one is capable of illuminating and clarifying the other. Nor is their similarity confined to a common originator; they likewise share a common origin. For fiction is necessarily based upon fact, the ultimate elements of an imaginative structure are inevitably supplied by experience. It can not be otherwise.

How comes it then that the offspring of the same parents, nourished in the same surroundings and occupied in not dissimilar operations, are treated so differently? Why is it that we regard the one with sober respect, and the other with suspicion, though it be a fond and sympathetic suspicion? Or, if we deal less harshly, why do we still insist on careful isolation? In short, why do we ascribe truth to those products of the imagination which have reference to our own immediate surroundings, and not to others?

Granted that James was right in saying that "the true is only the expedient in the way of our thinking" there still appears to be no obvious reason why we should make factuality an innate and essential characteristic of all truths. For unless we wish to regard expediency in its very narrowest meaning, as something which will provide results with the least effort, we are obliged to regard it in well-nigh its broadest meaning, as something which will provide the greatest eventual benefits. In this sense, it retains all that is most consistently interested in progressive operation, and it retains its pragmatic bias in favor of effective influence on human events. But it recognizes the importance of the non-factual, and the influence which it exerts on man's activity. It recognizes that belief as well

as knowledge is power, and it seeks to stimulate and to foster those beliefs which will increase power, which will insure benefits, which, if you will, are most expedient.

Such an attitude, to be sure, requires no radical reconstruction of our present ways of thinking; it merely recognizes an existing state, and believing that it can be put to better and to more desirable uses, it seeks to control it, to make it part of the life of reason. But though it implies no signal departure from most of our ways of doing things, it will, I think, alter to no small degree our judgment of things, and the criteria by which we seek to affect these judgments. Quite specifically, it will require a redefinition of truth on a more adequate basis, or it will at least necessitate the establishment of a new term of approbation as a substitute for truthfulness.

I am inclined to believe that the former alternative would be preferable. Words by their use, whether this be logical or no, gain for themselves qualities which did not originally appertain to them, and which are not perhaps inherent in them. To some who are excessively literal-minded, these accessory meanings, these peripheral implications seem faulty, since they are adventitious. But to others it would seem that, though the product of accident, these secondary meanings are valuable and useful, and that far from deserving to be discarded, an intelligent understanding would seek to conserve and employ them. In general we may say this condition arises from the attachment of emotional, or at least an extra-rational significance to words. It is for this reason perhaps that the majority of terms usually associated with religious activity have gained this state, so that, in Wordsworth's phrase,

" . . . the soul
Remembering how she felt; but what she felt
Remembering not, retains an obscure sense
Of possible sublimity."

Gradually these qualities tend to become the fundamental and most important part of the word's meaning. It is for this reason that in the attempt to analyze terms such as these we discover that though their use has given us all essentially the same emotions, we mean rather different things by them. The discovery naturally arouses our suspicion, and the obvious temptation is to solve the problem by ridding ourselves of the troublesome word. This solution, however, is enormously wasteful. In attempting to practise it, we are disinherit ourselves of a priceless birthright to ancestral activity.

The danger is manifest in respect to the word "truth." Under idealistic auspices it had received an aura of excellence, it had become a quality to be predicated of perfection, and of nothing less.

The custom had its dangers, but it also had its benefits. The dangers arose from a predisposition to regard truth as static, and hence to assume that growth and progress were not to be accomplished. In its attempt to rid philosophy of this danger, positivistic and pragmatic thought has, however, also deprived it of the benefits of seeing in truth an ideal to be worshipped and striven for. And, ironically enough, pragmatism has thus been inclined to deny to man a useful instrument and a practical aid.

The question naturally arises how this discussion can have relevance in considering an idealism which would not have recognized truth in these terms, even though it would have recognized truth with these qualities and virtues. And, in turn, this confronts us with a larger question of the propriety of trying to judge a philosophy in any but its own terms. We have heard much about the need for understanding thought in relation to the period and conditions which gave it rise, and no one surely would question the advisability of such a course. To understand answers we must first understand questions; to comprehend a philosophic system it is necessary first to comprehend the interests, enthusiasms and prejudices of the times in which it was given birth. And it is equally necessary to have an insight into the life and the character of the thinker. Without this, adequate appreciation is impossible; without adequate appreciation we can not hope to gain insight; without insight we are blind. But when this method goes so far as to tell us that all philosophic systems are true, that two answers to the same question uttered simultaneously and differing diametrically are both true, then we must indeed turn skeptics.

For judgments and understandings are not synonymous, and though both are prerequisites to intelligent criticism, their objects are by no means identical. Nor are their methods. If we must seek to understand a philosophy in its own terms we must judge it in our own. This is not a counsel of perfection; it is inevitable as well as desirable. For we can not free ourselves from the interests and enthusiasms of our own times, and even less can we cast aside the controlling activity of our character and education. If we could do this, criticism would not only be dispassionate—which of course is desirable—it would also be devitalized.

This then may be my excuse for attempting to measure Hegel in the initial pages of my paper in accordance with a pragmatic and scientific standard. It will likewise be my excuse for applying to him the test of truthfulness, using the word in a sense which he would recognize as little or even less than the former. For him, the true was the absolute and certain; for James it was conformity to

reality; for us it will be the powerful, the effective in promoting human action.

It will, therefore, be advisable first to consider what the relation is between the pragmatic and the humane attitude. In how far will we continue to recognize scientific facts as true, and what relation will factual records have to truth? An illustration of a rather exaggerated character may serve to preface my argument.

The fact that we apply the same name, history, to the sequence of events, and to their written record, does not obscure the very real difference existing between them. That this is not entirely accidental, that it is inherent in the situation, must be evident. For lack of information, or actual misinformation, causes the very fewest variations. They arise chiefly from the fact that the function of a historian is necessarily selective, and that he is therefore obliged to give to his work emphases and connections which are not always found in the original. This is not the fault of history, unless we take an exclusively empirical point of view. The virtue of history as an educational instrument consists especially in the fact that it can make those things into a connected and correlated narrative which were formerly dispersed and diversified. Written history is inaccurate, since it can never attain complete pluralism; it is effective because of its unreal unity. But be that as it may, we know at any rate that written history is not a mere reproduction of facts. The problem, therefore, will suggest itself as to how great variation is justifiable. The answer obviously should be based not on *a priori* grounds but on a consideration of the educational value of history, and on the need of the persons that are to be educated. For history is not merely written of people; it is also written for people. Granted that it is to act as an inspiration as well as a warning, must we not consider the kind of inspiration and of warning required? This perchance is the justification of glorified history. If history is partly fiction, anyhow, why not make it the best possible fiction? Why not make our heroes more divine, and our failures more significant; why not use our imagination? The illustration may be fanciful, but it can not be silenced summarily. For it is essentially scientific procedure. It is entirely analogous to the action of the physicist who assumes his perfect vacuum, or of the chemist who insists on the truth of H_2O as the formula for water. Both of these are radically contradictory to the testimony of experience, yet they are assumed to be factual, and hence are denominated true.

Whether their truth should be an immediate corollary to their factuality is a problem which need not detain us long. We may seek to dispose of it in two ways. If we refuse to regard science as a mere truth factory, through whose operation falsehood is dis-

carded and truths are assembled, and if we are willing to forget for a moment our prejudice in favor of regarding all that is not strictly scientific as smacking of untruth and perversion, we may succeed in rendering an invaluable service to science. For if we have an adequate appreciation of the value of the scientific endeavor and point of view, we will be unwilling to hamper it with irresponsible epistemological implications. We will seek neither to establish the identity nor to insist on the opposition of the true and the factual; we will simply admit that the question is irrelevant. There will, of course, be no doubt as to the definiteness and certainty of our knowledge when based upon scientific principles. This will be complete as always, rational as ever, and having pragmatic sanction. But it will be the case not because of any superior reality or truth inherent in these products of experience, but merely because confirmation is possible, because the facts support the case. Science's natural basis will, therefore, be nature itself. Its ideal fulfilment will be a complete and accurate understanding of its own basis. Fact and truth will then not be thought to have anything to do with each other. But, clearly, this would dodge the issue.

On the other hand, we may make our consideration of factuality and truth dependent on our assumption that truth is a quality to be predicated of those things which influence human activity. Facts, since they are the results of an analysis of a world previously considered as a unified whole, if considered at all, are also portions of the controlling and determining structure of all activity. In this somewhat negative sense, at least, we are justified in ascribing to facts the quality of truthfulness, and in some cases facts are endowed with an enormous fund of influence over human actions, and hence with an enormous amount of truth. Thus the nature of the solar system influences all man's behavior, continually and in specific manners, but for Galileo it was possessed of a superior and more compelling variety of truthfulness. This latter type, moreover, corresponded in a signal degree to what we may designate as religious faith and passionate certainty. A man's suffering for his convictions on astronomy is not to be ascribed to stellar arrangements, and, on the other hand, the sun and the moon and the stars are but faintly concerned with the truth of the law of gravitation. And the nature of truth about constant facts may vary, though the truth remain the same; for truth is an attribute of things, but its significance rests with men.

Yet even though knowledge and imagination both mean power they are not to be considered identical, and though we may predicate truth of the objects of the former, as well as of the products of the latter, since both influence and stimulate man to act, it is clear that

fact and fiction must be held separate. And since the realm of fact is determined to a large extent, whereas the realm of fancy is undetermined and is continually being created by man's imagination, we must see to it that for the advantage of each, and hence for the benefit of man, the kingdom of fiction be kept within bounds.

It might of course be possible voluntarily to restrict our investigations of fact and hence uphold the domination of fancy, but though the attempts to do this have been frequent and ardently supported, they have but seldom met with success. And well so. For though we can limit our knowledge of facts, we can not limit their effects—unless, indeed, we cease to limit our knowledge. We can not keep both our ignorance and our power, and it is not to be wondered at that we strive for the latter. The limitation of scientific investigation might have some benefits, but it would be fatal. Science alone can fix its own bounds and limit its own activities if it is to be effective and progressive. We must not seek to restrain it. We must not; indeed we can not.

But this by no means destroys the importance of the imaginative function, nor does it even restrict its operation to that field in which, as we have seen, it is the henchman of the scientific investigator and of the practical reformer. For scientific investigation always leaves some worlds for the imagination to conquer. In the first place, there are always those spheres which, in its advance, it has not reached, and whither imagination, since it is less heavily armed, and since its line of supplies is more easily maintained, may always travel far in advance. Its only restriction is really its starting point and its tools, namely, life and the materials offered by experience. Its triumphs are fantastic, bizarre and attractive. They have their place in a rich and well-ordered world. But clearly, these products of the imaginative function can not be enduring as such. Science, though it is a slow and a ponderous traveller, will certainly overtake them and they must yield it their dominion. Like all enterprises which do not voluntarily restrict themselves beyond the restrictions of complete necessity, which do not cherish the lamp of obedience for the sake of its light only, they gain the privilege of license, but they suffer its consequences.

There is, however, another field in which the imagination may properly operate, and it is to this that I would in closing turn my attention. Its area is smaller than that of the realm which we have just been considering, but its soil is more fertile, and though its products are perhaps less luxuriant I believe that they are more wholesome and enduring. This realm contains those things which science has rejected as non-existential. One advantage will immediately be evident. Whereas the field which science has not invaded

is always growing smaller, the number of things which science has rejected is continually increasing. And there are other advantages, too. There will be fewer dangers to human progress when imagination plays in this province. There will be no tendency for imagination, whose fondness for her wards, religion and idealism, is notorious, to attempt to combat science, for science will be no longer trying to dispossess her. It will call on her for her services which, as we have seen, it invariably needs; and when it is done with her it will let her frolic.

But I have been lapsing into excessive metaphor. And, what is even worse, I have forgotten Hegel. What reference can a discussion of imagination, functioning on material which science has rejected, have to his writing? Clearly, he would have disavowed any intention to avail himself of this subject matter; and equally clearly he would have denied any correspondence between the dialectic process and what he might have denominated "*die Methodelosigkeit*" of the imaginative function.

To what part of Hegelism, then, may our discussion have application? Obviously, it has no relation to those unnumberable judgments and statements concerning history and the world of nature by which he sought to establish the existing order, social, political, and religious, as marking a climax in the world process. Though many of them have been taken exception to, and though some of them have been disproved, they still form a substantial testimony to his rare insight and his extraordinary versatility as an interpreter of history. Almost as obviously it has no relation to the dialectical method, though it, like all other methods, might well be judged by its ultimate results on man, as well as by its immediate products. It is, however, to the absolute *überhaupt* that I would turn my attention, as a concept which has been rejected by science because it has no existential or factual validity.

I have, then, admitted that I never saw an absolute, and never hope to see one, for the mere reason that absoluteness is not a quality which is found to exist in this world. On its acceptance, however, would depend in the last analysis, one's attitude towards the Hegelian system. For though one could accept verbatim Hegel's evolutionary and dialectic-evolutionary theories, if one rejected the concept of absoluteness one would cease to be an Hegelian; and, on the other hand, though one modified and altered all else, if one retained this one might properly claim to be a follower of Hegel. If one's vision, therefore, is restricted by the horizon of the natural order, one will perforce reject Hegelism as untrue in a scientific or pragmatic sense. But what of its truth considered from the point of view of its influence as a structure of the imagination on man's

career? If we grant that the absolute does not exist, what may we conclude of the power of an absolutistic philosophy on man?

There would be few who deny that it has in the past been an extraordinarily controlling factor in determining human activity. It is difficult however to go further than this. It is almost impossible to generalize as to the value or the virtue of its influence. Only one thing as we have seen is certain. In the judgment of absolutes, since their factuality is no longer claimed, they become part of the kingdom of the imagination and must be judged as such. Are they, then, effective in determining human destinies, and do they tend to promote progress, to benefit man?

As in all else, we may well make our judgment of absolutes relativistic. We may discriminate and determine which absolutes will pass our test, in which our criterion of virtue is a beneficent influence on human behavior. Surely then we need not share Socrates' uncertainty, who—as he tells us in the *Parmenides*—"sometimes grew disturbed, and began to think that there was nothing without an idea" and that even "such things as hair, mud, dirt or anything else that is foul and base" had its absolute counterpart in Heaven. Such ideals we will reject as unworthy and false, and we will retain only those typically Platonic ideas such as absolute beauty, truth, and goodness. For these are the things that stir man's imagination, that stimulate his énthusiasm and rouse him to energetic activity. He may believe in their excellence and desirability, and may strive to attain them. They will determine his every action, and guide each effort. They will evoke his whole-hearted admiration and aspiration; he will worship them, and hold them to be most important and most real.

For whether man be or be not the measure of all things he is certainly the measure of reality. He alone engages in metaphysical enterprise, the results of which are significant for him alone. They determine his behavior, and give him those characteristics which we long to call typically human because they are typically divine. We need claim no existence for them, but that will not make them less significant or less real. Nor will we be obliged to talk disparagingly of "mere" existence, for since the test and the proof of our ideals are necessarily found in their influence through man on the natural order, we will have done them no service by condemning this order. Rather our ideals will teach us to prize it more highly. Here then we have a reality of an ethical rather than a metaphysical import. It is truly humanistic for its test and its justification is human faith and the power that faith gives, its proof is human improvement and advantage, and its origin is human creative imagination.

PRAGMATISM AND THE IRRELEVANT

PRAGMATISM has had many names bestowed upon it. Early in its history, because of its emphasis on the relativity of knowledge, it was identified with subjective idealism. At length a scandal leaked out. It became known that pragmatism details to the process of knowing only a nervous system and an environment which stimulates that system in a unique manner. Immediately it was whispered in certain quarters that the doctrine should be called materialism. Still another, and radically different, kinship is claimed for it in Miss Ackerman's stimulating article *Some Aspects of Pragmatism and Hegel*.¹ It is objective idealism, according to this account, which the characteristics of pragmatism reveal.

A family resemblance on this side pragmatists are eager to have recognized. They claim that objective idealism and pragmatism display a common and distinctive trait in the stand they have taken as regards the organic relationship of consciousness and its objects. An insuperable dualism, in this connection, they remind us, is subscribed to by all other philosophical creeds. Miss Ackerman, however, goes further. She asserts that along with the point of resemblance just stated go others, by implication, at least, which are so fundamental that pragmatism has nothing whatsoever to distinguish it from Hegelian idealism. It is a reincarnated spirit whose earlier embodiment left no new worlds to conquer.

In support of this conclusion she presents an analysis of the assumptions involved in the pragmatic theory of knowledge, pointing out the agreement between these assumptions and Hegel's deliverances in the *Phaenomenology*. Pragmatism claims that knowledge is a process which is purposive and continuous and which gives, at times, the fulfilment of anticipation. But if this is true it must be granted that there is a structural counterpart of knowledge which connects up the successive stages of the process. It would be impossible to entertain purposes if one refused to believe that a future which somewhat resembles the past is guaranteed. Suppose, for example, that I am watching my neighbors newly-hatched chickens with the secret purpose of supplying myself later with tender "fryers." I must necessarily make predictions concerning the growth of the chicks, the continued efficacy of certain midnight methods, the survival of my appetite for "fryers," and other conditions too numerous to be stated. Let us suppose besides that I am called to account for my theft. My knowledge of the justice who probes my case grows out of my knowledge of my neighbor's chick-

¹ This JOURNAL, Vol. XV., pp. 337-357.

ens. In fact, it comes as the fulfilment of certain unwelcome anticipations which thrust themselves upon me one dark night. These facts show that the future both is and is not present in the past. For this is the puzzle which continuity and fulfilment present. "The only intelligible explanation," to quote from Miss Ackerman, "is that both past and future are parts of a more inclusive whole where they are interdependent elements in one relational system."

Add to the above list one other tenet of pragmatism and its identification with objective idealism is complete. Pragmatism subscribes to the "trans-individuality" of knowledge. This point does not need to be argued. Every manifesto carries with it the implication that there is an interrelation of the knowledge processes of proclaimer and hearers. But if this is true, then it must be granted that the structural counterpart of knowledge, observable in the thinking of an individual mind, extends itself under that of all minds, making a relational whole. It is, then, the absolute in all of its fullness before which pragmatism must bow. Deny the all-inclusive structure, whether in part or in whole, and the pragmatic logic and metaphysics change from an intelligible and highly satisfying account of the universe to the babbling of madness. We are moved to cry, "Thank God for Hegelism!"

Common sense, to be sure, will not join with us in this thanksgiving. That one can predict, observe continuity and fulfilment in the process of thinking, and have intercourse with one's fellows without subscribing to a total and fixed structure of things is verified, it tells us, by the fact that the unlearned do all of these things. The *Phaenomenology* and similar discussions are read late, if at all, and it is true that the *οἱ πολλοὶ* do not gain information about the structural counterpart unassisted. But this objection is irrelevant. Miss Ackerman, if I understood her, does not assert that all persons are sages. She states, rather, that one finds the structural counterpart when the logic of purposiveness, continuity and fulfilment of experience is reflected upon.

This brings us to the crucial point of the discussion. Let us grant that if we stop where pragmatism claims to, the concepts under discussion are unintelligible. Does the addition of the supplement which Hegelism furnishes make them meaningful? This is the question, I believe, which should be considered before one joins the singing of the *Te Deum*.

The following characteristics of the remedial "structure" are stressed. First, it is a *part of* and at the same time *apart from* the process of knowing; it is a *counterpart*. Second, it performs a function; it makes a unity out of numerous segments. Third, it

does its work in a manner that brings forth a specific form, namely, one that is fixed and all-inclusive.

Each of these traits of the structure raises a problem which the introduction of the structure was supposed to remove. The puzzle of continuity, which is that the future is in the past and yet not in the past, has an exact parallel in the structure which is both a part and yet not a part of the process of knowledge. The problem which fulfilment presents when no provision is made to hold together aim and goal, is repeated in the functioning of the structure, which has nothing to tie together the beginning and end of its praiseworthy act. And this specific problem of the structure becomes the more noticeable when it is recalled that it is a set type of relationship which it makes. Why the structure should not create an unstatic and incomplete complex, since it has no structure to hold it in the straight and narrow way of objective idealism, is not made clear.

Meaning involves relationship. Pragmatism is said to neglect this fact, and is, therefore, found wanting. But by the same process the acid test for Hegelism also is discovered. The structural counterpart of knowledge as defined is devoid of all relationship. How then can meaning be read into it? And if it is unmeaning, how much does one gain by taking it as the explanation of knowledge? Hegelism thus becomes its own critic.

We have not given pragmatism a hearing on the question: How is knowledge possible? It explains the purposiveness, continuity and fulfilment of the process of knowledge in terms of the behavior of the body and its environment. It finds that when knowing occurs the body is stimulated in such a manner that it prepares for the future before it arrives. The sight of a red apple causes my mouth to water even before I taste the apple. I say that the apple looks delicious. In this manner the future is *proposed* and *gets into* the past. Fulfilment, on the other hand, is adjustment. In the case at hand it is the behavior of the salivary glands proving appropriate when I eat the apple. The misadjustment which occurs if I bite into a hard crab apple after I have made preparations for deliciousness illustrates the opposite.

Whether this is a correct statement of the behavior of body and environment it is not our purpose to consider. The cogency of the method which is implied in this description, however, the discussion of the preceding pages would seem to make evident. Hegelism would have us go beyond knowledge to explain knowledge. But until the manner of *going beyond* is made clear one seems to play the part of wisdom in confining all explanations to the brute facts of experience.

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COMMENT ON DR. GOLDENWEISER'S "HISTORY,
PSYCHOLOGY, AND CULTURE"

DR. GOLDENWEISER'S articles on *History, Psychology, and Culture* in the October 10 and 24 issues of this JOURNAL are a contribution of prime importance to the methodology of the social sciences. Had the author not been devoid of Teutonic conceit, he might have entitled them *Prolegomena to any Future Social Philosophy Whatsoever*. It is certain, at any rate, that they will have to be reckoned with by any one who wishes to write intelligently on scientific methods in the study of social phenomena in the future. They are the more valuable because they are written by an anthropologist, a thinker of natural science training, who has stood apart from the hot controversies in philosophy, psychology, and sociology over the moot points on which he touches. Every psychologist, sociologist, historian, or student of any phase of human social life should read the articles.

The mere pointing out of the different categories into which Dr. Goldenweiser divides social and cultural phenomena (namely, "Objective-Historical," "Objective-Contemporaneous," "Psychological-Historical," "Psychological-Contemporaneous," "Deterministic-Historical," "Deterministic-Contemporaneous," "Accidental-Historical" and "Accidental-Contemporaneous") throws a flood of light on the difficulties of social science and does much to explain the controversies among students of social phenomena as to method and point of view. On the other hand, the acceptance of these categories by students of the social sciences would do much to clear up difficulties and settle controversy.

But students of social phenomena will have to have Dr. Goldenweiser's broad, liberal, common-sense point of view before they will accept his categories. As long as the dogma that science consists solely in the tracing of causo-mechanical sequences persists on the one hand, and the dogma of individualistic subjectivism on the other, many social scientists will find little use for Dr. Goldenweiser's categories. Only the frank recognition of the complexity of social causation and the giving up of all attempts at scientific "monism" would open up the way in the social sciences to the acceptance of his point of view and the use of his categories. In other words, social scientists would have to do what Dr. Goldenweiser has evidently done,—leave metaphysics and pet theories behind them and base their work frankly upon the common-sense view of social reality.

A few significant quotations from the article will make our contention evident. Dr. Goldenweiser, for example, tells us: "Statistics

presents at best but a rearrangement of the data. The data, thus marshalled, can not in themselves provide a solution to any social problem. In fact, the most signal merit of statistics consists perhaps in the very aptitude of that method to bring to the surface problems which otherwise might never be recognized. But the solution of such problems can only be reached within the level to which the data themselves belong, and thus falls to the lot of the sciences representing the conceptualizations of the particular set of data, whether this be biology, or psychology, or sociology."

Again, "the different aspects or features of a culture are inter-related. The level of these interrelations is psychological, or psychosociological; what else, indeed, should it be? It is generally recognized,—except, perhaps, by the extreme behaviorists,—that it is the *links* between the different traits of a culture which constitute it an organic integer, not a mere aggregate of disparate traits."

Again, "no permanently and exclusively objective fact can ever constitute part of culture, which itself belongs to the psychic level. Thus the truly objective might be left out altogether, the categories being conceptualized as actively psychological and potentially psychological. Then again the deterministic and accidental aspects of a situation are not mutually exclusive, but represent two sides of the historic reality which is never wholly deterministic nor yet wholly accidental, but comprises enough stabilizing factors to allow the formulation of certain historical principles or tendencies, even though not laws, and enough accidental factors to justify the concept of the uniqueness of historic events."

And finally, "What results from this critique of our analysis is thus the rehabilitation of cultural [and social] reality, which is never wholly deterministic nor yet wholly accidental, never wholly psychological (or active-psychological) nor yet wholly objective (or potential-psychological), never wholly of yesterday nor yet wholly of today, but combines all these in its existential reality."

Needless to say, my own point of view is so nearly identical with that of Dr. Goldenweiser that I have little or no protest to make to his argument. The only protest I would raise is to the sub-title of his article, "A Set of Categories for an Introduction to Social Science." If by this title and other remarks in the article anything pedagogical is implied, I should be sorry. The truth of Dr. Goldenweiser's contentions should be cordially recognized by all workers in the social sciences, but their pedagogical application is another thing. Personally I believe that while every teacher and every research worker in social science should be well grounded in the use of these categories, yet in presenting results to the public or to imma-

ture students the familiar and time-honored categories of origin and development, organization and functioning, continuity and change should be followed. Perhaps the less obtrusive we make our methodology in teaching social science, the better we shall succeed!

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REVIEWS AND ABSTRACTS OF LITERATURE

Dynamic Psychology. ROBERT SESSIONS WOODWORTH. New York: Columbia University Press. 1918. Pp. 210.

This book will have a wide popular appeal on account of its interesting style, and because it brings together in popular form some important recent developments in psychological literature. It is admirably suited for general readers, as well as for supplementary reading in elementary courses. However, the author's facile style, and the fact that he holds the reader's attention from the first page to the last, should not cause the fact to be overlooked that Professor Woodworth advocates several new conceptions and methods that challenge the consideration of psychologists, especially of social psychologists.

The opening chapter is a brief historical sketch of "the modern movement in psychology," indicating the sources and motives—epistemological, physiological, comparative, anthropological, linguistic, pathological, pedagogical, and industrial—that have given rise to the modern science. Otherwise comprehensive as a short survey, the author fails to notice, here or elsewhere in the book, the work that has been done in the psychology of religion. The second chapter evaluates the methods of those who conceive psychology as the "science of consciousness" and as the "science of behavior." The former are credited with "considerable progress" in the study of sensations, "good work" with mental imagery, and "suggestive beginnings" in a description of the conscious process of thinking. Regarding "behaviorism" the author remarks, "though few had given expression to this view of psychology when attempting to define it, a large share of all the experimental work from the time of Fechner down is virtually work on human behavior, and only incidentally, if at all, on consciousness" (p. 31). This holds true, not only of work on reaction time and on animals, but also of most studies of memory and practice, individual differences, heredity, mental development, and abnormal conditions. A mere union of the methods of "consciousness" and "behavior" would not provide a co-

herent system of processes for causal treatment, and so "dynamic psychology" must combine the results of the two with those of brain physiology, "working always toward a clearer view of the mental side of vital activity" and "an understanding of the complete processes of mental activity and development" (pp. 35, ff.). The third chapter, dealing with "the native equipment of man," is chiefly novel for adding to reflexes, instincts, and other usually recognized propensities, what the author calls "innate capacities." The latter, which are adaptations to more special features of the environment than instincts, serve to account for differences of natural capacity for diverse vocations and other activities. The fourth chapter summarizes recent investigations into the manner in which the "acquired or learned equipment" of man is added to the native equipment. The following two chapters, under the captions "Selection and Control" and the "Factor of Originality" show how, in the development of knowledge and character, selection is made between possible modes of reaction, and originality in reasoning and willing appear. Illuminating interpretations of "abnormal behavior" and "social behavior" from the point of view of "dynamic psychology" conclude the book.

The chief working distinction in "dynamic psychology" is that between "mechanism" and "drive." In a machine, "drive" is the motive power applied to make the "mechanism" go. Human and animal behavior, of course, are more complicated, and a variety of "preparatory reactions" characterized by a "persistent inner tendency" may lead toward the "consummatory reaction," as illustrated by a hunting dog in search of a lost trail, who is not "simply carried along from one detail to another by a succession of stimuli calling out simple reflexes," but is "driven along by some internal force" (p. 41). The mechanism for the consummatory reaction of capturing the game, once it is set into activity by a suitable stimulus, "acts as a 'drive' operating other mechanisms giving the preparatory reactions." "Drives" and "mechanisms" are not essentially different; "any mechanism might be a drive" (p. 42), and "every drive is also a mechanism" (p. 126). Though by no means a disciple of Loeb or Watson, Professor Woodworth seems to have decidedly mechanistic inclinations; in fact, he goes so far as to compare the human mind with a large manufacturing plant, stocked with all sorts of mechanisms, some useful, and others grown stiff and rusty with disuse (pp. 105, ff.).

In his exposition of "dynamic psychology" the more novel and distinguishing features are usually stated in contrast to the positions of the *Social Psychology* of William McDougall. The latter

derives nearly all human conduct from the "principal primary instincts" (flight, repulsion, curiosity, pugnacity, self-assertion, submission, parental, food-seeking, sex, gregariousness, constructiveness) with their attendant emotions, and the "non-specific innate tendencies" (imitation, sympathy, suggestion, play). Professor Woodworth apparently would accept all or most of these as genuinely innate tendencies ("innate mechanisms" in his own terminology), but he contends that in addition there exist other "innate mechanisms" which he calls "native capacities," i. e., aptitudes or gifts for certain activities, or for dealing with certain classes of things, as "when we speak of one person having a natural gift for music, another for mathematics, another for mechanics, and another for salesmanship" (p. 59). Conduct may be initiated by any "innate mechanism" whatever. "The great aim of the book is, that is to say, to attempt to show that any mechanism—except perhaps some of the most rudimentary that give the simple reflexes—once it is aroused, is capable of furnishing its own drive and of lending drive to other connected mechanisms" (p. 67).

The author's arguments for this doctrine of "innate mechanisms" in opposition to McDougall's simpler method of deriving all conduct from instinctive tendencies are principally three. (1) McDougall assumes that persons are with difficulty aroused to activity, so that "powerful" impulses are requisite, whereas the opposite is the truth, as is clearly evident in the case of young children, who alone are limited to native propensities. (2) Children are absorbed in any subject-matter for which they have native gifts, and their interest is not held where this is not the case. (3) McDougall's view implies that in order to secure action it is always necessary to appeal to extraneous motives (instincts) and not to interest in the activity itself. This is bad pedagogy and bad ethics. It implies that teachers and employers must appeal exclusively to extraneous motives, and not to love of the work itself.

The first two arguments, so far as they do not beg the question, appear to be involved in the third, and likewise to assume that to appeal to an instinct is usually to appeal to an extraneous motive. Now why does Professor Woodworth believe this to be the case? I suggest two explanations. (1) He has regarded McDougall's "instincts" as a species of his own "mechanisms," which latter are structural units like the pieces of machinery in a factory. This certainly is not the notion of an "instinct" held by McDougall, who speaks of "instincts" as "tendencies," "dispositions," "functional units" (*Social Psychology*): who says that they may be regarded as differentiations of a "will to live" or *élan vital* (*British Journal of*

Psychology, Vol. III., p. 258), and who in *Body and Mind* describes an instinct as in part purely psychical and without physical correlate (Chap. XIX., especially the reference to "curiosity," pp. 266, ff.). (2) Professor Woodworth, perhaps in consequence of his mechanistic leanings, overlooks the fact that for McDougall many native stimuli and modes of reaction may become suppressed and others be acquired, and that the latter then are integral parts of the instinct. He also fails to appreciate the importance in McDougall's system of the "sentiments." As a concrete illustration, let us take Professor Woodworth's instance of a child induced to study singing by appeals to his self-feeling. Such a child, he contends, unless he had a natural musical gift, would soon drop out and parry the appeal to his self-feeling by deriding singing and those children who excel him (pp. 67, ff.). No doubt this is true. (This, by the way, is a fortunate illustration for the author, as a native gift for pitch discrimination probably is a prerequisite for learning to sing.) But suppose that the child proved to have this native gift and learned to sing. Should we have to say that his further progress in singing would be due to gratification of this native gift, while his self-feeling would ever remain an extraneous motive? On the contrary, it seems to me that singing might become integrally attached to self-feeling in his case and become a characteristic mode for its expression. We may go on to imagine the child becoming so absorbed in singing that a sentiment develops, and that this sentiment (love of singing) receives the support of most, or all, of his other instinctive emotions, as well as of the numerous and novel complex emotions which the sentiment brings into existence. Ultimately, it may be, singing becomes the master passion of his life, and nothing else can rival his art as the most important constituent of his self; in regard to nothing else have his self-feelings become so sensitive to stimulation, or so violent in reaction. Similarly, Gaus's extreme absorption in mathematical work, "due to nothing else in the world but his interest in what he was doing" (p. 200), could no doubt, if we studied his biography, be traced to the development from instincts, first of a sentiment, and later of a master passion, for mathematics.

It does not therefore seem to the reviewer that Professor Woodworth is successful in showing that "native capacities," if such exist at all, are capable of controlling human conduct and character in independence of the instincts. On the contrary, if such "native capacities" do exist, they must become incorporated in the modes of behavior which are integral to instincts and sentiments. But to what extent do such "native capacities" exist? Professor Woodworth nowhere attempts to make a list of them. To do so, he says,

would be of little profit, for it would simply be "to enumerate the various occupations of mankind" (p. 60). They are not, however, he tells us, differences in talent for abstract mental activities such as reasoning, imagination, and memory, in which men do not differ so much as in the class of subject-matter in which they excel (pp. 60, 75). In one passage they appear to be differences in interest and adaptability to certain objective features of the environment—"color, form, tone, spatial arrangement, mechanical effect, plants, animals, human beings" (pp. 75, ff.). It must, I suppose, be conceded that there are differences in native ability to discriminate pitch, and make other adaptations to the environment. Some activities in life, no doubt, have as prerequisites an unusual amount of native ability to make specific adaptations of this sort. Perhaps experimental work in "vocational analysis" in the future will establish quite a number of such instances. But there is no warrant for supposing that any activity to which a person's attention might be called, and for which he has a natural knack, could become the dominant interest in his life, unless it became the object of a sentiment, capable of enlisting the principal primary instincts in its support. So far as such natural gifts exist they must, like the instincts themselves, be to some extent general, and capable of expression in a variety of activities. For, suppose the attention of one of two brothers were early in life to be attracted to a business opening in the manufacture of hats, and another to an opening in a shoe factory, and each brother became a great captain of industry. Should we not have to assume that the two men probably did not differ greatly in their native capacities, and that either would have succeeded if he had started in the calling chosen by the other? Otherwise, the number of possible "native capacities" would be infinite, and inclusive of every human activity in which people differ in ability, from singing and salesmanship to lawn tennis and bridge whist, and in that case even the Lamarckian theory of the transmission of acquired characters could not suffice to account for the diverse elements attributed to human native equipment!

To charge an interest in the novel, as McDougall does, to a general instinct called "curiosity" the author thinks is to miss the point. "Curiosity" is simply "a collective name for an indefinite number of impulses, each of which is dependent on the existence of some degree of ability to perceive and understand a certain object" (p. 103). Here, one suspects, the author has been misled by Thorndike, whose conception of instincts as specific reactions to specific stimuli has led him to split up the comparatively few principal primary instincts into an almost infinite host of mechanisms. But Drever (*Instinct*

in *Man*, Chap. VII., Cambridge, 1917) has effectively answered Thorndike in behalf of McDougall on this issue, and Hocking (*Human Nature, and its Remaking*, Chaps. X., XI., New Haven, 1918) has given a better explanation of "curiosity" as a kind of process in which stimulus and response are both primarily central. Personally, I am still disposed to believe that men, like animals, delight to watch whatever is novel in their perceptual experience, that this became the source of reverie, and that scientific interest, going as it does beyond practical needs and the promptings of other instincts, is a further development of this same instinct of curiosity (this JOURNAL, Vol. X., pp. 653 ff.).

A more justified criticism of McDougall appears in the discussion of social behavior (pp. 188-206). Group activity has for man, an attractiveness of its own, not covered by McDougall's "gregarious instinct" (which he makes a mere tendency to herd). McDougall has failed to perceive this, and so he makes little reference to comradeship and other relations between equals. So he has little to say of justice, which evolved chiefly by fair play among equals, rather than by domination and submission. Here it must be conceded that there is an omission in McDougall's account of the native equipment of man. But it is by no means necessary to adopt the author's doctrine of "native capacities" in order to remove it. In an account of the psychology of punitive justice, some years ago (*Philosophical Review*, November, 1911) I sought to overcome this difficulty by giving wider scope to the "gregarious instinct." Professor Graham Wallas, in the *Great Society*, suggests that there may be a slight native propensity to love felt between fellow members of the same species generally (pp. 142, ff.). Probably it would be wiser to reserve the term "love" for the sentiment, and to call this native propensity the "social instinct." In any event, Professor Woodworth's objection can be successfully met, either by widening the scope of one or more of the instincts in McDougall's list, or by adding another to them. In the light of Hocking's classification on different planes, this added instinct could belong to the same general non-specific type as "curiosity."

While therefore, the undersigned can not declare himself a convert to the doctrines of "mechanism," "drive" and "native capacity" in preference to the simpler and less mechanistic conceptions of McDougall, he has found this book stimulating and suggestive. It provokes thought on fundamental principles, and it is bound to contribute much to make social psychology *dynamic* in the best sense of the word.

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL BULLETIN: February, 1918. *Association Number*. Extracts of the papers read at the annual meeting of the Amer. Psych. Assoc.—Twenty in general and experimental psychology, 5 in educational psychology and 10 in mental tests.

PSYCHOLOGICAL BULLETIN: March, 1918. *A Note on Measurement by Relative Position* (pp. 57–60): S. C. KOHS.—Difficulties encountered in the use of Thorndike's method of measurement by relative position are mentioned. *Speed of Presentation and Ease of Recall in the Knox Cube Test* (pp. 61–64): L. M. RACHOFSKY.—The Knox cube test was given to different groups at different speeds. The accuracy of recall increases inversely to the rate of presentation. *General Reviews and Summaries: Vision—General Phenomena* (pp. 65–75): L. T. TROLAND.—Sixty-three articles on vision are reviewed. *Hearing* (pp. 76–85): R. M. OGDEN.—Twenty-seven researches are reviewed. *Special Reviews: Hout and Voivenel, Le Courage*, H. N. GARDINER. *Report: Definitions and Delimitations of Psychological Terms*, prepared by a Committee of the American Psychological Association: twenty-eight words and phrases used in psychology are defined.

Carlisle, Chester Lee. *The Causes of Dependency: Based on a Survey of Oneida County*. Eugenics and Social Welfare Bulletin No. XV. of the New York State Board of Charities. The Capitol, Albany. 1918. Pp. 465.

Mackenzie, J. S. *Outlines of Social Philosophy*. London and New York: Macmillan Co. Pp. 280. \$2.60.

Sheldon, Wilmon Henry. *Strife of Systems and Productive Duality: An Essay in Philosophy*. Cambridge: Harvard University Press. 1918. Pp. iv + 528. \$3.50.

Strong, Charles A. *The Origin of Consciousness: An Attempt to Conceive the Mind as a Product of Evolution*. London: Macmillan Co. 1918. Pp. 330. 12s. net.

Stuart, Henry Waldgrave. *Liberal and Vocational Studies in the College*. Stanford University: Stanford University Press. 1918. Pp. 72. 75 cents.

NOTES AND NEWS

IN commemoration of the six hundredth anniversary of Dante's death, which will fall in 1921, the *Rivista di Filosofia Neo-scolastica* and the Catholic Committee for the Dante Centenary announce a prize of five thousand lire for the best essay giving an exposition of the philosophical and theological doctrines of Dante Alighieri, illustrated from the sources.

The essays must be received by four P.M., January 31, 1920, at the office of the Secretary of the Italian Society for Philosophical and Psychological Research (Milan, Italy, Via P. Maroncelli 23). They must be unedited and may be in English, Italian, French, German or Latin. The essays for which prizes are assigned are to remain the property of the promoters of the competition. These latter undertake to publish during the year 1921, the centenary year, the successful monograph or the essays honored with partial prizes. The essays are to be delivered anonymously, and must be accompanied by a sign or number to be repeated on a sealed envelope which shall contain the competitor's name and address. The Examining Committee in its sittings will follow the usual academic rules.

THE *Revue Philosophique* for November-December 1918 reports that "Edward Abramowski, the Polish psychologist and sociologist, died at Warsaw on June 22, 1918, at the age of forty-eight years. He studied at Geneva, and after that came under the influence of Peter Kropotkin. During the last ten years of his life Abramowski was busied chiefly with experimental psychology. He founded a psychological laboratory at Warsaw, from which appeared a number of works, including the important one on *The Normal Subconscious* which Abramowski brought out in 1918 through the firm of Alcan, and which bears the stamp of a strong and original mind."

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

POLITICAL THOUGHT IN RECONSTRUCTION

DILETTANTISM is as widespread to-day as it was when Carlyle wrote *Past and Present*, nor is it altogether self-evident why this term of disapprobation has been transferred from the world of politics to the realm of art. For it can hardly be denied that essentially the same failure to apply intelligence and imagination to social questions, the same ineffectiveness, and the same petty opportunism typify our legislative assemblies, as characterized the parliaments which called forth the scorn of the author of *Sartor Resartus*. Yet a change of decided significance has taken place. Social questions and political problems have begun to evoke the interest and to occupy the attention of thinkers capable of making at least some headway, and though the results of their labors are uncertain and have hardly affected the trend of practical affairs, nevertheless the ascendancy of political philosophy gives rise to the hope that parliaments may, ere long, cease to be mere talking establishments.

At any rate, an important change in philosophical tradition has undoubtedly taken place. It would be manifestly absurd to argue that at any time in the history of thought problems of social organization have been entirely neglected; yet it is equally obvious that while interest was focussed on Heaven or on the Thing-in-itself, man was naturally relegated to a position of secondary importance. For preoccupation with the other world and with the world of exaggerated dualism inevitably decreased the interest in exclusively human affairs. To be sure, St. Augustine's *City of God* had its mundane implications, and Hegel wrote a *Philosophy of Rights*, but though there is hardly a philosopher of note with whose name some political tract is not associated, thought was removed in more ways than one from the subject-matter of the *Republic*, the *Ethics* and the *Politics*.

Nevertheless there were more things in this world than Horatio dreamt of in his philosophy, and though no Plato or Aristotle appeared to formulate the conditions of social progress and to offer a programme for its furtherance, political life continued and under the influence of discovery, invention and industry, took on new forms

and guises. Perhaps it has never been adequately realized to how large an extent the errors of the industrial revolution are to be ascribed to accident, or rather to a single accident—the absence of intelligent comprehension, foresight and guidance. The dismal science was gloomy more because of the narrow vision of its exponents than because of the inherent darkness of the subject-matter of so-called political economy.

As an antidote to what he conceived to be the pessimism and pettiness of the school of Malthus and Ricardo, Carlyle advocated a return to the “eternal verities.” By fixing his gaze on these, man might assert his spiritual self and demonstrate his affinity to the transcendent super-sensible world. And in so doing the ills of this world would largely disappear.

There is perhaps little in this combination of German idealism and temperamental mysticism to remind us of Greek philosophy. Yet in Carlyle we have at least the recognition of two fundamental and axiomatic principles. He recognized in the first place that man was no mere passive subject of economic laws, but that he was an active agent capable of influencing and affecting the conditions and circumstances of his life. He did not fall into the fallacy of forgetting that economic man was primarily a man and only incidentally an economic man. In the second place he realized the importance of a plan of action, an imaginative programme by which activity could be guided. These two principles, it seems to me, so often neglected, are essential to any system of thought properly denominated political philosophy.

The supreme importance of these factors in our present situation is evident. We have perhaps been somewhat disingenuous in our protestations of complete disinterestedness in the war. To be sure we desire no colonies and have no *irridenta* to redeem; yet in a sense the world is our *irridenta*. We battle to secure it for our ideals. Are we prepared to mobilize the 1919 class of our ideals for prompt invasion? It were a sad commentary on our intelligence if they had in no way been affected by the experiences of the past four years. Though the condition may not be the most desirable it is manifest that a world in chaos is more plastic for our reforming desires than a world in the languid quiescence which we have been wont to call peace. Excessive optimism might suggest that in war we have found that coöperative organization to which we aspired, that in the struggle we have attained a moral equivalent for peace. Remaining more sober we may hope that we have made some progress even though we have achieved only the semblance of organization. To continue the development of these ideals and to endow them with new vigor

and purpose must be the primary function of political thought in reconstruction.

If reconstruction is to mean more than an attempt to return to ante-bellum habits, if political problems are to be of paramount significance in ethics, then surely it is of the utmost importance that political thinkers avoid the dangers which have in the past rendered their activities ineffective—the twin disabilities of insufficient practical intelligence and inadequate idealizing imagination. Imagination without intelligence usually results in beautiful Utopias to which we may flee from a less perfect world and for which we may well render grateful appreciation, but which do little to solve our problems since they fail to suggest means of accomplishment. Lack of imagination, on the other hand, has led thinkers into the pragmatic fallacy of forgetting that instruments must be subordinated to ends of some kind, that a programme must imply some result which it aims to achieve. *Realpolitik*, like realism in art, tends to suggest that only the base and the ugly are genuine, that ideals have no reality or importance.

A significant political philosophy will, then, seek to provide the essential features of an education which will foster and perfect it. It will attempt to provide a methodology and a technique suitable to the attainments of the ideals which it envisages, and in addition it will aim at that subtlest and most indefinable of all things essential to intelligent control in political affairs—an attitude of mind. Since this is to secure the greatest possible control by intelligence it may briefly be designated the scientific attitude, a willingness to judge each new experience and each newly presented fact with as slight a prejudice as possible. Or, to reverse the emphasis, it is an inclination to judge each experience in the light of the past, so that each added fact may be as significant as possible. This implies no lack of balance, no tendency to indulge in wild and fantastic flights with insufficient preparation. Our programme will depend to a large extent on individual temper, but complete openmindedness is not incompatible with caution; it is a mistake to assume that only radicals and revolutionaries can be “intellectuals.”

We are also in error when we attempt to identify intelligent action with action which can be formulated in terms of a syllogistic sequence. If we seek thus to limit the sphere of intelligence we will inevitably restrict the achievement. The function of reason is rather to coordinate all the elements of a complete life than to eliminate any. Through its agency we may hope to attain variety without dissipation. It is especially necessary to insist on this at the present moment of reconstruction when there is danger that in building our new house we may forget to include many of the

chambers in which we have been happiest and most justifiably content. Nor can we be satisfied to have these placed in an annex. If we seek to confine reconstruction to economic or even to obviously political affairs we can not really be successful. Every human impulse and endeavor must be given its place, for though peace be more generous than war in allowing casual activity, all industry must be made essential to a creative peace. And even those values which have to many seemed remote can no longer be isolated but must permeate all activity. If I have seemed to limit the importance of philosophy to purely ethical concerns, the significance of a world view to ethics here becomes manifest. If intelligence is to function most successfully it must be guided by an ample and attractive ideal.

But, it may be objected, is such an imaginative structure necessary or even desirable? Will not intelligence function effectively if left unhampered by a preconceived plan of action, so that it may judge according to definite circumstances and determine its course in every specific situation? Is there not a tendency for any programme to become antiquated, lack application to altered conditions and at the same time to grow rigid and thus obstruct possible progress? For whether a social theory arose as a protest against the existing order or as a supporter of it, we know that with the lapse of time when the conditions which gave it rise had ceased to pertain, it still tended to continue by force of sheer inertia.

Yet it does not seem to me that these objections touch the main point, and as a matter of fact they seem here to transcend their indisputably useful rôle of critic and to prevent desirable advance along new lines. Nor does this imply that their usefulness is a thing of the past; the suggestion is rather that they must remain critical but not obstructive. Otherwise there is an obvious danger that they will merely substitute new absolutes for old, though these be of somewhat negative character.

To propose that man cease to operate in terms of ends, that he rid himself of programmes because they may interfere with progress, is to suggest that he deprive his imagination of its essential creative quality. It can not be done. For imagination must provide the materials which intelligence is to weigh and test by energetic application to actual social problems in specific situations. The initial criterion of its success will surely be its power to rouse our enthusiasm, to stimulate us to ardent endeavor and fortify us for successful activity. For if a system of thought is to affect political destinies it can not do so "ex machina," but must first gain supporters.

But the pragmatic and instrumental values of a programme are by no means confined to this single virtue of rousing enthusiasm for purposeful activity. Granted that the ideal is more useful as an

instrument towards progress than it might be as an actual "end," its usefulness need not be restricted to its psychological effects. It will serve as a convenient measure by which advance may be determined and it will be a standard by which progress may be judged. But if this is one of its benefits it is likewise one of its dangers. For if we may estimate success by reference to a determined ideal, it will not really be a success unless in the process our ideal also has advanced. A plan can be of abiding value only if it is a growing plan.

To aim at an end is certainly necessary if we are to aim precisely and with adequate assurance, but if the end is a finish then it will have served only half its purpose. It is a process of reciprocal aid for which political thought must strive, in which imagination and intelligence fortify each other for their mutual advantage and hence for man's benefit.

JAMES GUTMANN.

COLUMBIA UNIVERSITY.

AN OPPORTUNITY

To the JOURNAL OF PHILOSOPHY:

America is already playing a visible part in the destiny of Serbia. As a result of our common struggle, the Serbian race will be united in the free independent Jugoslavia, where all of us Serbs, the Croats and the Slovenes hope to find peace and an opportunity to pursue happiness and to contribute our modest share to the common civilization of mankind. But our needs—after the war—will be enormous, as our sacrifices during it have been of the heaviest. May I take advantage of your courtesy to draw the attention of your readers and contributors to a special need of the Jugoslavs which can be easily overlooked, but without the satisfaction of which much other assistance of a material order might prove futile.

Serbia and the Jugoslavs fight not only for their political and economic freedom. They are fighting not only for open ports, but also to come into free contact with the rest of the world, and so be able to exchange moral goods with the great and happier democracies of the West. Our first national need will be a new orientation and organization of our thinking. We have need of a national philosophy. We think that it can not be done successfully without the voluntary and sincere help of the American, British and French thinkers, scientists and philosophers. Therefore may I not appeal to such men in America to give a place in their thought to Serbia? They can help her very much in a practical way if they would write articles on the subjects they like most, but which can be immediately

applied to the life of a young struggling democracy which still has to find its way to a larger life of humanity. Such articles will be translated into the Serbo-Croatian language and published in a monthly magazine which I with some friends have arranged to start publishing as soon as our life in Serbia shall be restored.

V. R. SAVIC,

Commissioner of the Serbian Government

TO THE FRIENDS OF PHILOSOPHY IN AMERICA AND ELSEWHERE:

Everyone who regards life as the subject matter of philosophy must hope for Mr. Savic all encouragement and cooperation in the enterprise he has at heart; especially Americans, bred up, as we believe, with ideals of freedom, must be in hearty sympathy with such a purpose. While our friends in Serbia wish to develop in cooperation with the rest of a friendly world, exchanging experiences and ideas, their life will demand its own spontaneous sincerity, and it does seem as though philosophers in America ought to be able to offer some fruits of the freedom we admire.

No doubt many American writers can do so; but to what extent are they writers of "philosophy"? How many of us, the members of our philosophical associations, are ready with ideas that might assist in the intellectual and imaginative orientation of people so confident of their future, but obliged to build over again so much that has been destroyed? Perhaps many can do so; or if not, one explanation suggests itself at once. When the life of Serbia shall have won for itself a background analogous to our own, when the life of contemplation and analysis in the university of Belgrade shall be as complex and as professional as in our American universities, then, to be sure.

There is a good deal of truth in this, but there is much of naïveté. If our friends in Serbia put on our own burden of tradition, they will, no doubt, have to get rid of it by a similar travail of metaphysics; but as friends not alone of philosophy, but of freedom, we ought not to invite them to anything like that.

The journal that Mr. Savic hopes to establish does not, unfortunately, yet exist; we can not write for it. But all friends of progressive culture must desire its birthday, and wish to help it to prosperity and usefulness. We urge the friends of philosophy in America to consider how they may aid so excellent a cause.

W. T. BUSH.

To the JOURNAL OF PHILOSOPHY:

A new nation is simply a fresh experiment in that world-wide political laboratory wherein, since the beginning of civilization, the great research for Utopia has been going on. And now comes a representative of a particular new nation, Yugoslavia, with a declaration which, even in these astonishing days, makes us rub our eyes and ask whether we are awake. Here is a man who states that what a new nation needs above all things is a philosophy. And he asks help in this matter from America.

No! this is not a stroke of sardonic humor. It is a perfectly serious request. Yet, if we Americans have any humility left, it ought to cut us like the unconscious criticism of a child. Since when has America believed that a nation should be founded on the love of wisdom? The rôles should be reversed. This man has more to teach us than to learn from us. If he is in any way typical of his countrymen, the Yugoslavic experiment will be worth watching. Perhaps it is as true of nations as of men—our own early history suggests as much—that the child is father of the man.

But while this is the plain moral of the matter for us, to leave the thing here would be unjust to the serious character of Mr. Savic's proposal. Clearly Mr. Savic is not a man who needs to be reminded that the love of wisdom has no necessary connection with a hankering after a theory of reality (ontology, to use the ugly word itself), that the spirit of wisdom, since long before Socrates and Diogenes, has had a habit of assuming strange guises and lurking in out-of-the-way corners, that philosophy is not in the custody of the professional metaphysicians. Yet a Serbian might well not realize the extent to which the perversion of the word philosophy has gone among us—a perversion so absurd that if I pick off my shelves at random a history of "philosophy," I shall be likely to find forty pages devoted to the brain-spinnings of Leibnitz and less than forty words to the world-shattering doctrines of Rousseau; Hegel spread over a voluminous chapter, Nietzsche dismissed in a footnote; Herbert Spencer dissected at length and Samuel Butler not so much as mentioned (the last omission the more venial since the literary, the scientific, and the religious worlds have been as tardy as the philosophical in discovering Butler).

My idea, then, would be that Mr. Savic would do well to beware of trusting too much to merely professional publications, would do well to survey American periodical literature, both learned and popular, as widely as possible, picking out for translation articles of any character whatever which (1) reveal the presence of that impalpable something which betokens fervor for the truth, and which (2) are

sufficiently *human* in subject matter to fit Serbian as well as American readers and conditions; sufficiently *simple in expression* to make a wider than merely professional appeal, sufficiently *practical* to suggest points of application to the social and political problems of Yugoslavia. Articles—I care not what their subjects—that can pass these tests will be pretty certain to be philosophy. Conversely, might not American authors and scholars create more philosophy, if, before printing, they would subject their work to the difficult test: Would this help Serbia?

One further suggestion. America is fortunate in having produced as great a prophet of democracy as ever lived: Walt Whitman. If I were editing a journal in behalf of Serbian philosophy and democracy, I would not let a single issue appear that did not contain the translation of at least a few lines of Walt Whitman's wisdom.

HAROLD GODDARD.

SWARTHMORE COLLEGE.

To the JOURNAL OF PHILOSOPHY:

I suggest that it might put us in the way of helping in this good cause if we should determine to give in our various institutions a course on fundamental values of life as they appear to us in the light of the past four years, and on the important ends—social, educational, national, legal, economic, moral, religious—which we may reasonably work for after the war. Suppose we should drop—or hold in abeyance—for a time some questions we have loved, and follow the tradition of Plato and Aristotle, Locke, Descartes and Kant, not by discussing their problems, but by attacking the most vital public questions of our day. Might it not help American students, as well as possible readers among the Yugoslavs? And possibly our own thinking would profit if we should work in a field where we could not lean so heavily upon the past.

JAMES H. TUFTS.

UNIVERSITY OF CHICAGO.

To the JOURNAL OF PHILOSOPHY:

The letter of M. Savie, a voice, as it were, out of Macedonia, is such a challenge to American thinkers as should bring us, if not to offer the aid for which we are so little competent, at least to the public confession of our weakness and the honest man's effort to get free of it. As from the fine and affecting plea of M. Xavier Léon, last year, for the closer interchange of American and French thought, so here we are brought to face a self-accounting: what have

we to offer, we who bear the proud title of philosopher in the world's greatest republic, that is of social and moral and humane value to our fellows overseas in the year and the day of their stress and tribulation? "That philosophy is vain which eases no human ill,"—alas! it is always some Greek we must quote, even when we would set a measure for our own self-judgment. Balk at it we may not; the plain fact is that we in America are still but pale pensioners of European thought. The men of our race, Americans we call them, have undergone a tremendous social and physical experience in building up a new life in a new continent. But up to this hour, in an inner and profound sense, the meaning of this experience, in such form that it may be made vital and adaptable by men of other life in other lands, has found no expression. I am not forgetful of Emerson and James and Royce, nor doubtful of the genuineness of their Americanism; but who can pretend that they have given us such a glass of our reflective self as can show its unwavering line or depth? Their boldest strokes are still but faint tokens of the truth.

But if philosophy is with us thus inept and helpless there must be reasons therefor, which, through understanding, may indicate the paths of reform and rejuvenescence. Two, at least, of these are obvious.

Whereof the first is assuredly the narrowness and distortion which comes of a merely pedagogic horizon. American philosophers are teachers of philosophic tradition rather than formers of philosophic ideas. I do not mean to say that there is no inventiveness nor progress in our thinking; but that its main color and temper are determined, not by the life of the great society, but by the needs of the lecture-room. Where we should be leaders of public life, at least as being its heard critics, we are instead occupants of scholastic "chairs," heroes of seminars, and wordy astonishers of youth. In brief, we are teachers, not only before we are philosophers, but before we are citizens. This is, of course, no more true of professors of philosophy than of other professorial groups; but it is perhaps more damaging in the case of philosophy than with other forms of learning, for the very reason that the one pretension which can justify philosophy is the breadth and depth of the social and human experience upon which it builds. Not until we cease to be "professors" first and "philosophers" second, not until we free ourselves of scholastic seclusion and dependency and share with our fellow citizens the whole peril and adventure of civic creation, can we hope to speak with authority for America.

But philosophy must perforce be futile and sterile if there be

no public to which it can appeal; and where, in America, is the civic group ready to listen, even should we break through the bands of our pedagogy and seek to speak as men? Truly, it is thin and scattered; the average American has neither the zeal nor wit to follow strenuousnesses of reasonings remote from his obvious interests; at his best, where speculation is concerned, he is idly curious. Now this is not his fault (if it be a fault), nor altogether ours. He would reform, speedily enough, could he perceive the applicability of ideas to his affairs—that is, to his life, and the life of the state of which his is a part. And we should convince him of this application, were our speech not so foreign to him, and the gap between his interests and ours not so intellectually bridgeless. To some degree we are responsible; our pedagogy is responsible; for assuredly, if the teachers of philosophy were to succeed in college in impressing upon the minds of its students, not merely the intricacy but the tremendous social importance of speculative studies, we should soon have a public of our own making, ready to harken to, participate in, and spread philosophic knowledge. No doubt, in a great decentralized state, such as is the United States, this is vastly difficult; but it should not be impossible to such groups of men as are represented by our philosophical associations. Let them but begin publicly and collectively to address the nation, on such elementary matters as are subject of agreement with them, and in no long period they will be answered by the public interest.

For never in our history was there such an opportunity for the thinker as is now. A great war has been fought in Europe, and its end marks the close of that Renaissance which began with Petrarch and Erasmus, with Luther and Descartes, which upbuilt a high and superb idol of human nature, and which now beholds the ruins of its imaginings. The work of philosophy—which, throughout the ages, is the slow and deceitful labor of framing an adequate outward representation of man's ever undiscovered inward nature—is to begin anew, on new foundations, with new insights, to new ends. Politics, ethics, esthetics, metaphysics, psychology, too—all the old terms must be given refreshed meanings. The European Renaissance, with all its ideals, is now as closed a chapter of human history as is classical paganism or medieval Christianity (as closed, and living), and we are face to face with a new birth, a World Renaissance.

Pray do not mistake me; I do not prophesy. I am no blind believer in a fated "progress" (whatever that may mean) of all men; nor am I in the least confident that even the great economic and social alterations of men's condition which seem certain to come

will necessarily be accompanied by a genuine enlightenment of the spirit. For aught I know, we may be on the eve of such an inner darkening of mankind as no race yet has fared through. But being, in the poor professional way, a philosopher and a believer in philosophy, and having faith in the final power of American thought to find its genuine and effective expression, teaching others as it is taught by others, I can not abandon the great hope that the new age upon whose threshold we stand is to be an Age of Man in a more beautiful and spiritual sense than any which has preceded it. For now it is not Europe alone which brings the revelation; it is to be the whole world of Earth's men.

HARTLEY B. ALEXANDER.

UNIVERSITY OF NEBRASKA.

To the JOURNAL OF PHILOSOPHY:

The Serbian invitation opens stimulating possibilities for American philosophy. Philosophy, as we know, thrives most on doubt, perplexity, struggle. Where there is finality, philosophy shrivels up and dies. During the past two or three decades, there has been an illusive appearance of finality in our American life. We had achieved democracy. The long travail of the ages was at an end. What more was there to do? There were loose ends to be trimmed, no doubt, and ragged places to be tidied up. These were tasks for the lesser fellows—economists, sociologists, biologists, chemists, physicians, and so on—the engineers as over against the philosophers. The great principles were clear; the ultimate trends established. Philosophy, therefore, might retire on her well earned income and play epistemological chess games with herself for the rest of her life.

Of course the finality was an illusion. Democracy had not been achieved. Society ached and groaned for deliverance. Philosophy had been duped into a too easy acquiescence.

To attempt now to write or to help write a philosophy for Serbia is to plunge again into all the stimulating perplexities. It is to re-value what has been valued. It is to help build up from the ground and to build better.

Few tasks could be more salutary for American philosophy. Few tasks could more effectively rescue her from many of her latter day futilities.

I sincerely hope that the—all too flattering—invitation may be accepted by American philosophers.

H. A. OVERSTREET.

COLLEGE OF THE CITY OF NEW YORK.

THE FUNDAMENTAL VALUE UNIVERSAL

I

IN the history of ethics and of the theory of value it has usually been assumed that good or goodness is the fundamental value category. Occasionally right or ought has been taken as fundamental. The object of this paper is to prove that the relation "better" is a sufficient fundamental universal for the theory of value and that it is the only value universal which can be taken as fundamental. In other words, all value facts are facts about betterness.

Our problem must be dealt with by definition and analysis. We wish to prove that whenever we think or speak about any value characteristic, we are at bottom dealing with the relation better. To prove this, we must construct a system in which betterness is taken as the starting point; this means that betterness will be undefined in this system. Then all other value terms must be defined by means of "better" and of such general terms as are common to all systems. No attention will be given to the question whether betterness can be defined in non-value terms. That is a subsequent problem.

The importance attached to such a system of definitions will depend upon the importance attached to the value experiences and beliefs of human beings. But it should be obvious that the importance of value experiences and beliefs can hardly be settled until after an accurate analysis of value has been made. Moreover this is not the place to answer those who dislike any accurate analysis.

II

Although we are not concerned to define "better" in any non-value terms, yet we must distinguish different meanings of the term and point out the sense intended. There are at least three different uses of "better," but only the first use given below is important for our present discussion. (1) In comparing two entities, say *A* and *B*, we may consider *A* alone and *B* alone, and so judge that *A* is intrinsically better than *B*. Here the effects or consequences of *A* and of *B* have been temporarily disregarded. (2) We may compare the effects of *A* and the effects of *B*. Then *A* may be called extrinsically better than *B*, because its effects are intrinsically better. (3) We may compare the totality of *A* and its effects with the totality of *B* and its effects. Then we may say that *A* is completely better than *B*, because the one totality is intrinsically better than the other.

It has been necessary to distinguish these different meanings of betterness only in order to fasten attention on the first use as intrinsic betterness. The other uses are obviously indirect ways of dealing with intrinsic betterness and are definable by it. So when the word "better" is used by itself, it is to be understood as meaning intrinsic betterness. As most of the other general value terms have the same plurality of meaning, their use without qualification will denote their "intrinsic" meaning. All of these distinctions may seem obvious, but the neglect of them vitiates a large amount of recent discussion on the theory of value.

III

The term "worse" is defined as the logical converse of better. "*A* is worse than *B*" means "*B* is better than *A*." Every two-term relation has a logical converse, and it is plain that worse is the converse of better. Some will object here that in comparing two good things, we speak of *A* being better than *B* rather than of *B* being worse than *A*. So when dealing with two bad things we use worse rather than better for the comparison. The explanation of these verbal usages may be interesting, but it could hardly be thought that they denote any important differences in the values. Worse is the converse of better, and any verbal idiosyncrasies must be disregarded. If this is true, it may be suggested, then worse could have been taken as the fundamental value term instead of better. This is quite true. Such a plan would involve no objective difference from our present plan. But as human beings dislike to look on the dark side, it is more convenient to start with better as fundamental.

Value equality is to be defined by the negation of both better and worse. "*A* is equal in value to *B*" means "*A* is not better than *B*, and *A* is not worse than *B*." Here it is presupposed that both *A* and *B* are in the value scale, that is, that each is better or worse than something. We would not wish to say that two things outside of the value scale are equal in value.

The terms "best" and "worst" have meaning only when they are limited in their application. There is no reason to suppose that there is an absolute worst or an absolute best.¹ "*A* is the best member of class *X*" means "*A* is better than every other member of class *X*." "*A* is the worst member of class *X*" means "every other member of class *X* is better than *A*."

¹ This should be evident to any student of the logic of relations. I hope to discuss it in a separate article on the highest good.

IV

The definitions given above are simple and obvious. The important definitions are those of goodness and badness. Here we must distinguish intrinsic goodness or badness not only from extrinsic goodness or badness, but also from "moral" goodness or badness. Moral goodness or badness applies only to voluntary or intentional conduct, but many things besides this may be judged intrinsically good or bad. Our question then is, can intrinsic goodness and badness be defined by betterness? The following definitions are attempts to do so.

In discussing the definitions of good and bad we must notice that these qualities, like all intrinsic value universals, apply only to "facts." This has been observed by many writers, so a detailed discussion of it may be omitted here.² What is good or bad is a fact, and a fact is whatever can be denoted by a complete judgment. We may symbolize these facts by such expressions as "that so-and-so is the case," "that so-and-so exists (or does not exist)," or "the existence (or the non-existence) of so-and-so."

Another consideration to be noted is that good or bad facts are always positive or existential. This is because all of the negative or non-existential facts in the value scale are indifferent or neither good nor bad. The proof of this statement will require separate discussion. Here it is asserted merely in order to explain the following definitions:

"*A* is good" means "the existence of *A* is good" or "that *A* exists is good." Now this is to be defined as meaning "the existence of *A* is better than the non-existence of *A*," or "that *A* exists is better than that *A* does not exist."

"*A* is bad" means "the existence of *A* is bad" or "that *A* exists is bad." This is to be defined as meaning "the non-existence of *A* is better than the existence of *A*" or "that *A* does not exist is better than that *A* does exist." By the use of worse the definition will be "the existence of *A* is worse than the non-existence of *A*."

It should be noticed that these definitions treat goodness and badness as being complex, relational characteristics. Goodness and badness are not simple qualities. This relational complexity may seem strange at first thought, but reflection will show that the equivalences stated in these definitions are correct. There may be other ways of stating the same facts, but the method used here is sufficient for present purposes.

² In addition to the works of Meinong and his school, see G. E. Moore, *Principia Ethica*, London, 1903, p. 120.

These definitions of good and bad contradict the letter of Mr. G. E. Moore's assertion that good is indefinable.³ They do not necessarily contradict the spirit of his doctrine which is that the fundamental value term is not definable by any non-value term. Betterness may or may not be definable or analyzable, but goodness and badness are certainly definable by betterness.

Do these definitions give an answer to the world-old problem as to the relation between good and bad? Where better occurs in the definition of good, there worse occurs in the definition of bad. So good and bad are converses in the precise sense of the modern logic of relations. Neither good nor bad depends on the other, but both good and bad depend on better.

V

With the term "indifferent" we must distinguish two usages. It always applies to what can not be called either good or bad. But this is ambiguous. "Indifferent" is sometimes applied to what is not on the value scale at all. This usage is unimportant here. In the other sense "indifferent" is applied to what is on the value scale but is neither good nor bad. In this sense "*A* is indifferent" means "the existence (or the non-existence) of *A* is indifferent" or "that *A* exists (or does not exist) is indifferent." Here we must give separate definitions. "The existence of *A* is indifferent" or "that *A* exists is indifferent" means "the existence of *A* is better or worse than something, but is neither better nor worse than the non-existence of *A*." Or we may use the notion of value equality already defined, and say that "the existence of *A* is indifferent" means "the existence of *A* is equal in value to the non-existence of *A*."

Since all negative facts which are on the value scale are equal in value,⁴ we may define indifference for them by the symmetrical transitive relation of being all "equal in value." "The non-existence of *A* is indifferent" means simply "the non-existence of *A* is equal in value to the non-existence of anything."

The phrase "as good as" obviously means "not worse than," though it is usually assumed that both of the objects compared are good. "As bad as" means "not better than," though here it is assumed that both objects are bad. Such phrases as "very good"

³ G. E. Moore, *Principia Ethica*, Ch. 1.

⁴ This assertion will be proved at length in a future article. Here the reader is asked to see if he ever judges as intrinsically good or bad what is a negative fact or a fact about non-existence (such as *A* does not like *B*, no one likes *B*.) These facts may be extrinsically but not intrinsically good or bad.

or "very bad" are usually rather vague in assuming a somewhat indefinite standard with reference to which something is "as good as" or "as bad as."

There are many vague value terms, such as natural, reasonable, and ideal, which hardly call for discussion here. But the term "value" and similar terms may be explained.

"Value" as a noun may refer either to a universal or to that of which the universal is predicated. It is clearest to use "value" merely to denote a universal. Then "value" means goodness or badness or indifference. In the ultimate analysis, value means betterness. A value universal is a universal determined by betterness. A value symbol or a value term is a symbol or term which refers to a value universal.

A "value object" or a "value *relatum*" is whatever is better or worse than anything.⁵ To have value or to be "a value" is to be better or worse than anything. To be on the value scale means to be better or worse than anything. To have positive value means to be good, and to have negative value means to be bad.

A "value fact" is a fact which has betterness or something depending on betterness as one of its main relations. A "value judgment" is a judgment asserting a value fact. Similar definitions may be given to "valuations" and "value feelings."

It has now been shown that all of the above general value terms can be defined by betterness. It remains to ask whether any other system of definition is possible. As we have admitted, worse could be used as fundamental, but this would involve no objective difference in the resulting system. It must be repeated also that we are not now raising the question whether betterness itself can be defined by any non-value term. The problem is whether or not betterness must be accepted as the unique fundamental value category.

VI

Can anything other than betterness be taken as the fundamental value term? Only a careless thinker would take extrinsic value as fundamental, so we may confine our attention to the intrinsic value terms. Among these terms most writers have taken as fundamental either good alone or good and bad together. It can be shown that these are impossible theories.

If goodness alone is taken as fundamental, neither bad nor better can be defined by it. Bad is obviously not the contradictory of good. To say that bad is the opposite, contrary, or converse of good,

⁵ The complete analysis of value *relata* will require a separate article.

has no clear meaning unless we introduce the meaning of converse used in the logic of relations. But this would clearly be dealing with the relation better. In the next place, good alone can not be defined by better. Better means more than "more good," and even "more good" is a relational characteristic which goes beyond the mere quality that good might seem to be. At the very least, "more good" presupposes that goodness has degrees, and this means that we are dealing with a relation. This relation is clearly betterness.

If we assume both good and bad as fundamental, we shall have just as much difficulty. In the first place, what is the relation of good and bad? It is surely necessary to explain their relation, but it is to be feared that this is impossible on the present assumption. Certainly no one has ever done it. In the second place, even the use of both good and bad can not define better. One might say "*A* is better than *B*" means "(1) *A* is good and *B* is indifferent, or (2) *A* is good and *B* is bad, or (3) *A* is indifferent and *B* is bad." But this would still leave out the cases where *A* and *B* might both be good or might both be bad. To say that betterness is "more goodness" or "less badness" would obviously be to bring betterness into the system by a verbal disguise. To speak of degrees of goodness or of badness is to speak of betterness. To say that better is the relation that holds between the union of two goods and one of them alone, would be an objectionable disregard of Mr. G. E. Moore's principle of organic unities. It does not follow that because *A* and *B* separately have a certain quality (such as good is supposed to be), therefore the union of both will have "more" of that quality than either one alone has.

If one said that good, bad, and better are all fundamental and primitive value terms, one would have two difficulties. In the first place, there are many universal relations between these terms. For instance, take the very simple fact that the existence of a good is better than the existence of a bad. If good and bad are defined by better, this fact can be given a simple and easy explanation. But how could this fact be explained if good and bad and better are all taken as ultimates? It would have to be left as peculiar and inexplicable. So it would be with many similar facts. Only the assumption of betterness as the fundamental term can bring order into the theory of value. In the second place, it is objectionable to assume more fundamentals than necessary. The assumption of better as fundamental can account for all of the facts; therefore no additional assumptions should be made.

Is it not plain now that among the general value terms better is a sufficient fundamental term and that better is the only sufficient fundamental term?

VII

In addition to the general value terms with which we have been dealing, there are what may be called limited value terms. These are such terms as "duty" and "ought" which apply only to a certain kind of conduct. A limitation or restriction upon the use of these terms is implied in their very meaning. Of these terms the two most important kinds are the ethical and the esthetic value terms. We need not here consider the other kinds of limited value terms, such as legal or economic terms, because these values are generally admitted to be dependent upon the general value terms or upon the ethical value terms. So far as I know, no one has ever treated any of these other limited value terms as fundamental for the entire theory of value.

Our treatment of the ethical and esthetic value terms will be short and elementary. It will be sufficient for our present purposes to show that these terms depend upon the more general terms already discussed, and that they are too limited in their application to be considered as fundamental terms for the entire value system.

For ethical value terms the most nearly correct definitions have been given by G. E. Moore, H. Rashdall, B. Russell, and C. D. Broad.⁶ These terms, such as right and wrong, ought and duty, are complex in their definitions and they have different shades of meaning. But all of them are determined in the final analysis by intrinsic betterness. The following proposition indicates in an unquestionable way the connection between betterness and one use of a moral value term: "It is always wrong knowingly to make the universe as a whole intrinsically worse than it otherwise might be." Whatever difficulties there may be about special points, there can be no serious doubt that right and wrong are determined by the total value of the universe of which the given action is a part. This total value is intrinsic value, which has been shown to be betterness. So right and wrong are determined by better and worse.

Moreover right and wrong apply only to what can be affected by our choice or intention. The same thing is true of all of the moral value terms. This point has been stated so admirably by Bertrand Russell that I shall not linger on it.⁷ So moral value is too limited in application to be taken as a fundamental term in place of betterness.

It should be noticed that ethical value depends on betterness, not on goodness or badness.

⁶ C. D. Broad, "The Doctrine of Consequences in Ethics," *International Journal of Ethics*, April, 1914.

⁷ B. Russell, *Philosophical Essays*, p. 6.

It is probable that entirely satisfactory definitions have never been given to esthetic value terms. But the more plausible definitions treat beauty as depending upon intrinsic goodness. Thus Mr. G. E. Moore says: "The beautiful should be defined as that of which the admiring contemplation is good in itself."⁸ I doubt if this is quite satisfactory as a final definition, but it is certainly correct as far as it goes. Nothing can be beautiful if the admiring contemplation of it would not be intrinsically good. So beauty depends in part at least upon intrinsic goodness. Therefore beauty depends in part upon intrinsic betterness.

Not only is betterness involved in the definitions of esthetic value terms, but these terms have other qualities which make it impossible that esthetic value could be more fundamental than betterness. Esthetic value is obviously limited to objects of admiring contemplation. But there is no reason for limiting all intrinsic value in this way. Moreover esthetic value seems to many people to be more subjective than other values. Finally esthetic value does not have the same clear comparison which is involved in better and in right. For these reasons we may conclude that esthetic value can hardly be taken as the fundamental value category.

VIII

We have now gone over all of the general value terms carefully. Betterness was shown to be the fundamental term among these.⁹ Then a short examination showed that ethical and esthetic value terms depend upon the general value terms which in turn depend upon betterness. So all value facts are constituted by betterness. All value judgments are judgments about the relation better. Value is betterness.

⁸ G. E. Moore, *Principia Ethica*, p. 201.

⁹ So far as I know the main contention of this paper is new. It was suggested by a synthesis of modern theories of value with the new logic of relations. Such a system would have been impossible before the development of the logic of relations. Yet as every theory has hints which precede it, I give a few references. In none of these is the relational analysis present in an adequate manner. Aristotle, pp. 1008, b26, 731-732; R. Price, *Review of the Principle Questions and Difficulties in Morals* (London, 1758), pp. 79, 112-114, 119-121; G. Santayana, *Life of Reason* (New York, 1906), Vol. 1, p. 46; H. Rashdall, *Theory of Good and Evil* (London, 1907), Vol. 2, p. 351; G. E. Moore, *Ethics* (London, 1912), pp. 162-163; T. Lessing, *Studien zur Wertaxiomatik* (Leipzig, 1914), p. 21. (This last work is an astonishing example of that beclouded thinking which in former years would have won world-wide fame among scholars.) The entire theory of which the present paper is merely one part was outlined before the American Philosophical Association in December, 1914. See this JOURNAL, Vol. XII., pp. 105-106. For more recent discussions see W. M. Urban, this JOURNAL, Vol. XIII., pp. 677-683.

The conclusions given above have been reached by an attempt at logical analysis of value concepts. Perhaps this method by itself has given sufficient proof. Additional proofs can be given later by showing that the present hypothesis is more fruitful than other hypotheses, both in introducing order and system into the general science of value and also in furnishing a tool for the inductive study of human value judgments and value facts.

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REVIEWS AND ABSTRACTS OF LITERATURE

Philosophical Opinion in America. GEORGE SANTAYANA. *Proceedings of the British Academy*, Vol. VIII. London: Oxford University Press. 1918. Pp. 13.

Professor Santayana's address to the British Academy—the fact that Mr. Santayana is not really a professor any more would be an entirely irrelevant detail were it not so regrettable—deserves the appreciative attention of all who study American imagination in its more serious moods. America has, as it should, both the diffidence and the naïve confidence appropriate to a people just emerging from the awkward age. The problem of emancipation recurs for every vigorous generation and the vitality of American philosophy has appeared in nothing more clearly than in the will to be independent of what Mr. Santayana has excellently called “the genteel tradition.” To the extent that our culture was transplanted from Europe, our philosophy, as part of it, is rooted there; and in so far as the new climate has been really new, the fruits show features that are novel and original, and, no doubt, what old gardeners call a little wild. How has migration to the new world affected philosophical ideas? This is, as Mr. Santayana observes, a question curious in itself and one that may become important in the future; it is the topic with which his address is primarily concerned.

“At first sight we might be tempted, perhaps, to dismiss this question altogether, on the ground that no such effect is discernible. For what do we find in America in the guise of philosophy? In the background the same Protestant theology as in Europe and the same Catholic theology; on the surface, the same adoption of German idealism, the same vogue of evolution, the same psychology becoming metaphysics, and lately the same revival of a mathematical or logical realism. In no case has the first expression of these various tendencies appeared in America, and no original system that I

know of has arisen there. It would seem, then, that in philosophy, as in letters generally, polite America has continued the common tradition of Christendom, in paths closely parallel to those followed in England; and that modern speculation, which is so very sensitive to changed times, is quite indifferent to distinctions of place."

This is true, however, only of "*polite America*," America of the Puritan tradition. But life here is colored by other things. "The horde of immigrants eagerly accepts the external arrangements and social spirit of American life, but never hears of its original austere principles, or relegates them to the same willing oblivion as it does the constraints which it has just escaped—Jewish, Irish, German, Italian, or whatever they may be. We should be seriously deceived if we overlooked for a moment the curious and complex relation between these two Americas." The millions who have come here seeking the land of their hopes have thrown the philosophy of puritan values badly out of joint. Whether we like it or not, there has grown up a democracy of speculation. "Every system was met with a frank gaze. 'Come on,' people seemed to say to it, 'show us what you are good for. We accept no claims; we ask for no credentials; we just give you a chance. Plato, the Pope, and Mrs. Eddy shall have one vote each.'"

Yet the very struggle for emancipation makes new theories, in so far as they are ways of escape, functions of the old ones, and thus much supposed independence is largely imaginary. Escape from a tradition comes not in fighting it but in forgetting it, and the metaphysics of theological romanticism have, Mr. Santayana thinks, been largely forgotten by the younger American philosophers, whose style is, indeed, "deplorable," and who put up openmindedly with "being toasted only on one side." But it has been for most of us harder to forget idealism than Mr. Santayana suggests, and the concern with various problems of "consciousness," problems of "knowledge," problems of existence, is a proof that emancipation has been less thorough than, theoretically, it ought to have been.

"It may seem a strange Nemesis that a critical philosophy, which on principle reduces everything to the consciousness of it, should end by reducing consciousness itself to other things; yet the path of this boomerang is not hard to trace." Mr. Santayana traces it with his usual clarity. It leads to the conclusion that "Things are just what they seem to be, and to say they are consciousness or compose a consciousness is absurd. The so-called appearances, according to a perfected criticism of knowledge, are nothing private or internal; they are merely those portions of external objects which from time to time impress themselves on somebody's organs of sense and are responded to by his nervous system.

"Such is the doctrine of the new American realist, in whose devoted persons the logic of idealism has worked itself out and appropriately turned idealism itself into its opposite. Consciousness, they began by saying, is merely a stream of ideas; but then ideas are merely the parts of objects which happen to appear to a given person; but again a person (for all you or he can discover) is nothing but his body and those parts or other objects which appear to him; and finally to appear, in any discoverable sense, can not be to have a ghostly sort of mental existence, but merely to be reacted upon by an animal body. Thus we come to the conclusion that objects alone exist, and that consciousness is a name for certain segments or groups of these objects." Thus, as Mr. Santayana puts it, "to deny consciousness is to deny a prerequisite to the obvious, and to leave the obvious standing alone." And the same psychological criticism viewed from a slightly different angle is found "transforming the notion of truth much as it has transformed the notion of consciousness."

Mr. Santayana does not explicitly say so, but he makes it clear, I think, that the cloud of ambiguities that has darkened the discussions of "pragmatism" is due very largely to the unhappy circumstance that this discussion was supposed to be about the notion or meaning or concept of "truth." The word is, of course, ambiguous, having either the logical or the psychological emphasis. According to Mr. Santayana's definition, "the truth properly means the sum of all true propositions, what omniscience would assert, the whole ideal system of qualities and relations which the world has exemplified or will exemplify. The truth is all things seen under the form of eternity." On the other hand, the psychological criticism has given the word an improper and subjective meaning.

If, instead of being phrased as a discussion about truth, which it never was, the controversy over pragmatism had been more clearly about the reasons for regarding specific propositions as true or as false, and the ways of arriving at propositions that can be labeled either true or false, a whole chapter of academic misunderstanding might, we may hope, have been avoided. That is, the controversy was really about scientific method and the handling of evidence. The best definition of pragmatism the reviewer has come across is one by Professor Boodin in his book on the subject. He defines pragmatism, if I remember rightly, as "scientific method conscious of its own procedure." And this way of putting the matter agrees, I think, but I am not quite sure, with what Mr. Santayana means by the following: "Now there is a problem, not impossible to confuse with the problem of correctness in ideas, with which psychological criticism can really deal: it is the question of the relation between a sign and

the thing signified. Of this relation a genuinely empirical account can be given: both terms are objects of experience, present or eventual, and the passage between them is made in time by an experienced transition. Nor need the signs which lead to a particular object be always the same, or of one sort: an object may be designated and foretold unequivocally by a verbal description, without any direct image, or by images now of one sense and now of another, or by some external relation, such as its place, or by its proper name, if it possesses one; and these designations all convey knowledge of it, and may be true signs, if in yielding to their suggestion we are brought eventually to the object meant.

"Here, if I am not mistaken, is the genuine application of what the pragmatists call their theory of truth. It concerns merely what links a sign to the thing signified, and renders it a practical substitute for the same."

The spirit of all this is, Mr. Santayana points out, not entirely negative. It is full of the negations of escape, but it is positive, progressive and assertive. "It is very close to nature, as the lover of nature understands the word."

Mr. Santayana sees pragmatism too much, I think, in the very human but rather impulsive exposition of James, whereas the point of view which that word suggests to-day in America is the much more critical and analytic position that found expression in Chicago. It is difficult, to be sure, to contemplate Chicago under the form of eternity, and this may have something to do with the nuance of Mr. Santayana's emphasis. He says, speaking of the spirit of all the radical views referred to: "It is very sympathetic to science, in so far as science is a personal pursuit, and a personal experience, rather than a body of doctrine with moral implications." If, however, we restrict the application of this sentence to the position of the most distinguished living exponent of pragmatism in America, we must reverse the statement and say it is very sympathetic to science in so far as science is a body of doctrine with moral implications, and not a personal pursuit and a personal experience.

But as for the way in which the new world has affected philosophy. It has furthered the emancipation from conventional categories, and it has favored the undogmatic "assemblage and mutual confrontation of all sorts of ideas." Philosophy can not conceivably be, not for a long time at least, in America, the metaphysics of a genteel tradition. "It is time for it to become less solemn and more serious."

WENDELL T. BUSH

Studies in the History of Ideas. Edited by the Department of Philosophy of Columbia University. Vol. I. New York: Columbia University Press. 1918. Pp. 272.

This book is an achievement and a promise. The authors modestly describe the volume as expressing the "desire of those who are or who have been identified with work in philosophy at Columbia to encourage research and the exercise of the historical imagination and to contribute something to the work being done in this department of human interest." The volume does more than this. It sets a new standard for the historical approach to philosophical ideas. The history of philosophy, in large measure, has been as woefully false as the history of kings and queens. It has either taken philosophical ideas in separate abstraction from their living context, or it has planted them one after another as progressive sign posts on the way to the millennium. As a matter of fact, most philosophical writing and teaching during the past generation has been a convenient mixture of the two—convenient, for the abstraction of philosophic ideas from their social context has made unnecessary an infinite amount of labor, while the arranging of philosophical ideas as in splendid development out of each other has given to philosophy the appearance of triumphantly getting somewhere. Thus, for example, there has become fixed in philosophical teaching the tradition of the logical progression from Locke, through Berkeley, Hume and Kant. How every one of us, brought up in the old school, at one time or another, has led his class shudderingly through that valley of the deepening shadow! How we have made them breathe hard as they waited for the death of an utter skepticism to make an end of them; when lo! out of the shadows, the blessed sunshine of Immanuel!

The present volume modestly requires that history be not fiction. And it modestly proceeds to transform some bits of fiction into the likeness of history. Noteworthy in this respect is the paper by Wendell T. Bush, *An Impression of Greek Political Philosophy*. Dr. Bush, suspecting that Greek political philosophy was not the fine flowering of what we have traditionally regarded as the noble Greek life, but that it was rather the strong protest against a type of life very far from noble, brings to bear a wide range of reading in Greek history and literature to prove his point. As a result we have a living setting for Greek political philosophy. We see it warmed to its business by the characteristic shortcomings of its time. We note its function as a protest and corrective.

Dr. Dewey's paper, *The Motivation of Hobbes' Political Philosophy*, is likewise an attempt to substitute history for fiction. "It is the object of this essay to place the political philosophy of Hobbes

in its own historic context," a context which shows Hobbes to have been primarily concerned not with the problem of individual freedom *versus* public control, but rather with that of the conflict of church and state. And so again, a whole series of neat logical progressions to which we have grown accustomed is disposed of.

Walter Veazie makes an elaborate search through Greek writers to discover the meaning of *φύσις*; M. T. McClure, analyzing the scientific, mystical and humanistic interests of the Greeks, comes to some valuable conclusions as to the meaning of reality in Greek thought.

John J. Coss quotes from Francis Bacon, showing him to be in fact the progenitor of this new movement in historical philosophical thinking. "In general, those who have not followed Bacon's advice have considered philosophy to be a continuous series of approximations to a solution which must be single and absolute. With such a view, what could be more appropriate than the presentation of the history of philosophy under the headings of its most persistent problems? Such a system enables one to see in a kind of kinematic fashion the flicker of opinion, and, if the cataloguer is at all an historical dramatist, an unfolding of the dialectic plot which will bring down the curtain with the destruction of the villain of the opposition and the glory and renown of the hero of the story."

Albert G. A. Balz writes on *The Psychology of Ideas in Hobbes*; Robert B. Owen on *Truth and Error in Descartes*; William F. Cooley on *Spinoza's Pantheistic Argument*. Dr. Woodbridge contributes a paper on *Berkeley's Realism*, which places Berkeley in a philosophical position distinctly different from that in which he has traditionally been placed and so leads to new interests and evaluations. Adam Leroy Jones writes *A Note on Dr. Thomas Brown's Contribution to Esthetics* which links up the old Doctor with so different a philosophic personality as George Santayana.

The two logical papers of W. P. Montague and H. T. Costello fall outside the general scheme of the book, but are nevertheless acute contributions to the more modern aspects of logic. Dr. Montague writes on *The Antinomy and its Implications for Logical Theory*; and Dr. Costello on *Old Problems with New Faces in Recent Logic*.

With all its decided excellence as a path-breaker in philosophical method, one can not help wondering at a certain remoteness of this book. "Philosophy," says Dr. Bush, "when it is most in earnest, begins not in vision, but in the search for it. It starts with disintegration and thrives not so much upon its own success as upon partial failure in mastering its problems." One would suppose that the present years were the very ideal stimulus for a new develop-

ment in philosophy. And yet this book moves with a serenity of unconcern about things contemporary that makes one wonder whether all this pother about a world at grips is not a bit overdone. Or is it that the new philosophy, born out of the stress of the present, is being thought and written not by the accredited philosophers at all but by common soldiers, journalists, statesmen, novelists, and, now and then, even by sociologists. Such a thing has indeed happened before in the history of philosophy, as witness Boehm, Spinoza, Marx, *etc.*

The hope in the present instance lies in the fact, first, that this little book is but Volume I of a series still to be written; and second, that a number of its writers are men whose interest in things contemporary has not only been profound but effective. The volume sounds a note of vigorous dissent from old philosophic methods; it applies, frankly and searchingly, a new method. It is to be hoped that a succeeding volume will bring the older philosophic ideas into connection with the unsettled problems of a very much perturbed world of to-day.

But the book is not only an achievement and a promise; it is also, and most significantly, an invitation. "The title of the volume represents a larger field of inquiry than the matter here included would indicate, a field in which others than philosophers are engaged and in which it appears that ideas have a history and that their history is influenced by contact with lines of experience not commonly called philosophical. The contributors have a sense of their obligations to co-workers in other branches, and wish to encourage and invite their collaboration."

This, perhaps, is the most inviting note struck by the book. Philosophy, having lived overlong in bilious epistemological seclusion, announces to the world that it means hereafter to be a merry fellow with the rest. In fact it opens its forbidding door and offers the beginning of a feast! Surely, when philosophy becomes aware that there are "co-workers in other branches"—in economics, history, politics, law, poetry, the drama, as well as in mathematics, physics, biology and so on—co-workers with whom there may be effective collaboration—a new and far more fruitful day has dawned for an intelligent approach to human problems.

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL REVIEW: Vol. 25, No. 4. July, 1918.

Associative Aids: II. Their Relation to Practise and the Transfer of Training (pp. 257-285): H. B. REED.—Evidence that learning things in one order helps to learn them in different orders is considered proof of transfer of training. Such transfer takes place through the use of associative bonds common to the old and new orders. Such a use is essentially a case of thinking through old associations in new directions. Evidence for the theory that transfer of training must be explained by common associative bonds is present in these experiments. There is no contradiction with Thorndike's theory of identical elements, but simply gives it specific meaning. The experiment demands a reformation of the law of contiguity. The togetherness of objects in experience is not sufficient condition of association unless it is accompanied by active attention.

Intelligence as Estimated from Photographs (pp. 286-296): RUDOLF PINTNER.—Sixty-three adults judged the intelligence of 12 children by their photographs. The 12 children were tested by the Yerkes-Bridges scale. They varied from 4 to 16 in chronological age and from 5.7 to 12.5 in mental age—i. e., some were bright and some feeble-minded. The pictures of the children are included in the paper. The results showed no correlation between the judgments of people and the intelligence of the children. Snap judgments of children's intelligence are not reliable.

The Genesis of the Image (pp. 297-304): CURT ROSENOW.—A suggestion is made for the birth of imagery. The objective is open to the observation of all; the subjective is experienced by the individual alone. The genesis of thought sketches the coming to consciousness of this distinction. A discussion of Miss Washburn's treatment is made.

The Heterochromatic Differential Threshold for Brightness: I. Experimental (pp. 305-329): LEONARD THOMPSON TROLAND.—Research from the Nela Research Laboratory, General Electric Co., Cleveland, Ohio. The feature of the studies which is perhaps of the greatest importance for photometry is the relatively great influence exerted upon the brightness threshold by small color differences.

Rate of Pupillary Dilation and Contraction (pp. 330-340): PRENTICE REEVES.—Research from the laboratory of the Eastman Kodak Company. The rate of closing of the pupil was measured by taking motion pictures of an eye fully adapted to total darkness. Time and rate adaptation curves showed marked differences for different colored lights and for different intensities of the same color.

REVUE DE METAPHYSIQUE ET DE MORALE. July-August, 1918. *Le concept chez Aristote* (pp. 405-418): O. HAMELIN. — The concept does not give the substance nor the real essence of substance, for the reality of the individual comes from matter. *Neovitalisme et Sciences Physiques* (pp. 419-431): R. MOURGUE. — Physics itself has given the proof of the special order on which manifestations of the vital order appear. *L'optimisme et la science* (pp. 433-473): A. LECLÈRE. — Neither absolute optimism nor absolute pessimism is justified by science but a little pessimism has the greater value as tonic effect. *Études critiques. La métaphysique de Josiah Royce (suite)*: G. MARCEL. *Enseignement. Pour un enseignement philosophique nouveau*: E. CRAMAUSSEL. *Discussions. Sur la dégradation de l'énergie*: C. D. BROAD.

Aristotelian Society: Life and Finite Individuality. Two Symposia edited by H. Wildon Carr. London: Williams & Norgate. 1918. Pp. 194.

Perry, Horace. Theories of Energy. New York and London: G. P. Putnam's Sons. 1918. Pp. 231. \$1.75.

NOTES AND NEWS

RIKIZO NAKASHIMA, Ph.D., Yale, 1889, for many years professor of ethics in the Imperial University of Tokyo, translator and author of many works in his field, and actively connected with moral education in the Japanese school system, died of influenza, December 21, 1918.

THE *Revue de Métaphysique et de Morale* for September-December, 1918, is a very much enlarged number, devoted to the examination and criticism of the Prussian interpretation of the Protestant Reformation as an exclusively German achievement. There are thirteen articles, devoted to various aspects of the Reformation in Germany, France and England, the Protestant beginnings of democracy and the relations of the Reformation to the modern world.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

NEW AND DOMINATING TENDENCIES IN FRENCH PHILOSOPHY SINCE THE BEGINNING OF THE WAR

A CHANGE of attitude, both remarkable and rapid, regards fundamental problems, found expression recently in French thought.

When the war began, France was still hailed as the land of philosophical renovation at the hands of men like Boutroux and Bergson. But, when after a period of about three years, people were ready again to listen to philosophical discussions, France appeared to them as if possessed with an entirely new speculative mind. Anti-Boutrouism, and especially Anti-Bergsonism, seemed to be the rallying cries. Books like J. Benda's *Sentiments de Critias* (1917), and R. Lote's *Leçons intellectuelles de la guerre* (1917), have a vigor that can hardly be surpassed, and an outspokenness that indeed nobody can misunderstand. They oppose with the utmost determination, to modern Intuitionism—which they connect with old Romanticism, and with German Transcendentalism—the clean-cut Intellectualism which obtained in the line of pure French tradition from Descartes down to Taine; and they sound a threatening warning against any temptation to relapse into subtle, and fluid, and metaphysical, and falsely humanitarian sentimentalism. It is only right to say that both Benda and Lote had spoken before the war; the first was the author of *Bergsonisme ou une philosophie de la mobilité* (1912), the second of *Les origines mystiques de la Science allemande* (1913). The only difference is that almost nobody listened to them before the war, while now hardly anybody disagrees.¹

But, important as such programmes may be, dealing more with epistemological methods and philosophical attitudes, the constructive theories of men who already have actually applied non-in-

¹ No mention is made here of G. LeBon's books, *La Guerre européenne et ses enseignements psychologiques*, and *Premières conséquences de la guerre* (1915), which are (as Professor Perry has shown in this JOURNAL) rather disconcerting. The suggestions of the author of the *Psychologie des foules* are always interesting individually; but they offer no consistent and connected attitude towards the war.

tuitionistic minds to the practical problems brought about or emphasized by the war, are even more important. And we have, three years after the outbreak of hostilities, and while they are still raging with unabated fury, two full-fledged philosophies, pretty well developed by writers often very forceful, or at least of indisputable dialectic skill. While widely different in nature, they are both in line with anti-intuitionism or specially anti-Bergsonism.

They run parallel; at the same time, while one seems to have already yielded what will probably remain its most vigorous products, the other has been, for reasons to be explained, a little slower in developing; but there may be a compensation, perhaps, in a brighter future. The first is what we may call *Papalism*, by which is meant Neo-catholicism in as far as it represents a political, rather than a theological creed; the other is what we may call, provisionally, *Democratism*—a term which is vague, but rightly so, for it covers a multitude of political creeds.

I

NEO-CATHOLICISM AND PAPALISM

Papalism had been started before the war; it had been—together with violent and yet guarded outbursts of monarchism, which, however, is now left almost completely in the background—taken up as a means to stop the disorders resulting from the strifes of republican political parties; these disorders had appeared increasingly dangerous as the German war menace came to be realized. Twenty years ago Papalism had been given a great impulse by philosophers and men of letters like Brunetière, Bourget, Lemaître, Coppée, while the concrete and purely political aspect of the movement, “nationalism” as it was called, was given in the famous paper *L’Action Française* (since 1899). Both, political and philosophical aspects, had then been taken up by Barrès in his two remarkably keen series of novels, *Le Roman de l’Energie Nationale*, and *Les Bastions de l’Est*; also by Ch. Maurras in the *Revue Encyclopédique Larousse*, and in his book *L’Avenir de l’Intelligence*; again by Pierre Lasserre, *Le Romantisme Français* (1908), and by A. Seillière, *Le Mal Romantique* (1908), etc. More recently Papalism received a fresh impetus, thanks to the current of opinion created independently by Charles Péguy, the man who connected the political renovation of France with the mystico-patriotic inspiration of three saint women, the Virgin Mary, patroness saint of Christianity and impersonation of divine love as symbolized in the great French cathedrals, Joan of Arc, patroness saint of France, and Sainte Geneviève, patroness saint of Paris. Thus, when, after two years of war, France was pre-

pared again to discuss social theories and political organization, the prospects were not bad for Papalism. Ch. Maurras, known already as one of the most forceful writers of France, made use of the opportunity with skill and decision, as might be expected. And of course his writings, pointing towards Rome as an inspiration, were to find even more echo in consequence of the religious dispositions awakened by the war; then militating in his favor, too, one must count the very outrages of Germany in Belgium, and especially at Louvain, which outrages have given to a Roman prelate, Cardinal Mercier, a prominent place among war personalities. Maurras's articles have been collected in several books; one will particularly well illustrate his doctrines: *Le Pape, la Guerre et la Paix*. It has the usual vigor and keenness which one expects always from him, it is consistent in all its parts, and his dialectic power is not marred, as it was in Brunetière, by heavy, complex sentences. He has the fine, traditional, French style of Bossuet and Joseph de Maistre.

Reduced to its simplest terms, his contention is: that the world must return to the idea of a catholicity of humanity, in social organization as well as in philosophical thought; there must be some sort of link between and above the national units of the world, some concrete medium of communion between the human families. Now, this universal communion, this catholicity, was once impersonated by the Pope; even to-day the Pope remains an impersonation of universality. Socialistic universality has failed; imperialistic universality, in the German sense, will fail. The people must see, thus, that "we work to reestablish a notion a little more reasonable of what the pope, the Holy See, stands for, of his function among nations and above nations."

That lofty universality, which *did* exist, was destroyed—by the Reformation. The principle of the Protestant movement has been to substitute for the theory, according to which men will obey governments dealing *rationaly* with problems, a theory according to which the people—and thus the nations—will be ruled by a *subjective moral conscience*, which disregards rational principles. This is bound to breed disorder, and indeed the period of the Wars of the Reformation all over Europe is the worst that civilized humanity has known. Maurras adopts Barrès's formula, "no possibility of restoration of *la chose publique* without a doctrine." In modern times, Protestant subjectivism has ended in the monstrous attempt of one individual to subject all the others, Imperialism. The megalomaniac "conscience" of the Kaiser suggests to him that he is the representative of God, and that he must rule the world according to his inspiration. . . . Thus Maurras endeavors to "expose" what

he calls "the old-time antinomy of Lutheran Germany and of Latin Catholicism."

Another point of Maurras's doctrine is this: he believes in reflected, intelligent arrangement of the world, and in all the nations working harmoniously under *one* rule, this rule to be represented by a *moral* power like that of the Pope. But he does not believe that all the nations are equal, mentally speaking, and have an equal right to international affairs; this is a matter of *intellect*. In his universal society there must be hierarchy (Plato): "that dogma of equality of nations is the cause of anarchy in Europe. . . . Yes, France is a nation (*patria*), but not all nations are France, nor comparable to France. . . . There are obligations, which all countries have to accept, but does one believe that the man from Germany, no matter how vehemently patriotic he may be, is possessed with the same qualities (*biens*), and with so many qualities, as the man from France?" Of course, Maurras admits that the *Republic* of France has not been a model of political organization, but he offers the example of the seventeenth century, when—different social conditions being taken into consideration—French diplomacy under Cardinals (Richelieu, Mazarin, not to speak of Bossuet) gave France a world prestige politically, while keeping for her the title of *Fille aînée de l'Eglise*.

Concretely speaking, the first step would be to have the French government send a delegate to the Vatican—where now the Austrian delegate, undisturbed, can control the only international political organization in existence.²

In Maurras we find the same attacks that we have seen before, on those who, knowingly or not, represent the Lutheran spirit in France. He attacks *faux latinisants* like Pichon, who accept "miserable models which are of barbarian make, *viz.* Germanic and Lutheran, through Kant and Rousseau." As to Boutroux, one of the guilty, he was honest enough to go beyond Fichte, and point to Kant as the father of nineteenth-century Lutheranism; but, if Kant, "one must grant also Rousseau—Rousseau born on the borderland of Latinity and of Germany, Rousseau, great revolutionist, and inspirer of Kant in Germany, Rousseau, by the same principle, author of the so-called French Revolution, Rousseau, the last incarnation of the spirit of Luther." Or "the French Terreur is the consistent result of the Declaration of the Rights of Man, and of Rousseau sentimentality, as the Imperialism of Fichte is the consistent development of Kant's individualism." Maurras goes so far as to ascribe the sinking of the

² J. Benda, in his pitiless criticism of all that does not appear clear and straightforward, has a few pages on the attitude of the Pope during the present war, in *Sentiments de Critias* (pp. 91-97); they are worth reading, in view of the constant attempts by Maurras to justify the *neutrality* of the Pope towards German barbarians.

Lusitania to Protestantism; giving up intellectual and mental development for mere material progress, the Reformation was bound to bring about such horrors. "To counteract the result of that fatal material progress, an improvement and a higher training in the education of human souls would have been necessary." But this did not take place, and "men to-day feel infinitely less brethren than five hundred years ago, or even two hundred years ago. . . . The innocent passengers of the *Lusitania* meant nothing to Wilhelm II. and his subjects." Maurras has no soft feelings for Bergson; the latter's dangerous fame irritates him—"it is no longer possible to pronounce the word *qualité* in an official ceremony without bowing deeply before the Jew from Scotland, who is not even a good scholar of Aristotles and Saint Thomas."

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Representing the same tendency, two books have attracted quite a little attention: Henri Massis, *Le Sacrifice* (1917), crowned by the Academy. He is the friend of Ernest Psichari, the author of the much-praised military novel, *L'Appel des Armes* (1913), and who died a beautiful death in the first days of the war. Massis, who had, with Tarde, Jr., written *L'Esprit de la Nouvelle Sorbonne*, in 1912, denouncing the Germanic teaching of some Parisian professors, later came to adopt with Psichari entirely Neo-catholic ideas. *Le Sacrifice* is made up of articles composed since the war. Maurras has a sharp, keen mind, his *reason* guides him when he advocates a social organization under the supervision of the Pope; but Massis is a fanatic, and with a generous, but really unconvincing ardor, he denounces human reason itself—the very reason which Maurras tried so hard to oppose to subjective Protestant conscience—as the great cause of the modern catastrophe. His book is very alert, and stimulating, but even when his eloquence moves us, it does not convince; how could it, since he opposes dogma to reason? He evokes Péguy, Psichari, discusses war and politics, always abusing "*la raison dépravée des modernes*," and "*la vaste et charnelle futilité du temps présent*." In the fierce struggle of the war, he sees mystically the struggle between soul and flesh; and to France he ascribes the same part to-day, which Christ played two thousand years ago, when He died in *expiation* for the sins of a wicked humanity. The war means an action, the purification of the world by Catholic France: "All that is spirit will be saved in this struggle; therefore, whether we want it or not, it is the Christian world that France defends."

Vallery-Radot was known before the war for a novel, telling in burning style, of a conversion to Catholicism, *L'Homme de Désir* (1913). Since the war, he published an *Anthologie de la Poésie Catholique, de Villon à nos jours*, (1915), with a preface containing

these words: "Who would suspect, in reading Rabelais, Montaigne, Racine, Molière, V. Hugo, that a God died for us on the Cross? This must stop." His *Réveil de l'Esprit* (1917), even more perhaps than Massis's book, may compromise the cause it was meant to defend; here again the reader, who may well have been convinced by the supreme dialectic cleverness of Maurras, will possibly suffer a shock, and feel like turning his back on the whole Neo-catholic movement. That exalted, at times inflated, style leaves one dazzled perhaps, but confused as well. There are once more the same furious attacks on rationalism, on Rousseau, on Protestantism, on the materialism of the age; but in vain do we look for that clear and concrete thought of Descartes and Bossuet, which the author claims to be the natural mark of Neo-catholicism. Denouncing bitterly "democratic fetishism" or *morbus democraticus*, as mere word-eloquence, or talking loudly about "Protestant and revolutionary pride, which has passed into our veins with the liberal virus," is no refutation; to call the other Cain, and reserve for one's self the name of Abel, is no argument either; and to say all the time that one represents the *élite*, without proving it, is dangerous, to say the least. Making so preposterous a summary of Rousseau's doctrine—as Vallery-Radot does in his introduction—is not very chivalrous; not to mention the fact that our author's fanatic sermon against twentieth century frivolity and corruption reminds one strikingly of Rousseau's famous *Proserpina* of Fabricius, directed against eighteenth century frivolity and corruption; when he actually condemns the sanitary houses of our days, and good light, is this not a sign of short-sightedness, rather than of superiority? Is it quite accurate also to claim that the whole world is already converted to his own views: "All the forms of thought, which had tried to eclipse Catholicism in the nineteenth century, and which have seduced the *élite*—Pantheism, Rationalism, Humanitarianism, what do I know—fall rotten to the ground; they are things dead, and which only individualistic fetishism or the vanity of the old world succeeds in keeping up." Even the fact that he proclaims his triumph from the depths of the trenches can not remove all doubt from our minds as to the sweeping victory; and it causes one to wonder, too, why he needs to put so much passion, then, in crushing ungenerously a pitiable foe.

But for one who wants to become acquainted with that current of thought, Vallery-Radot's book altogether is worth knowing. The Christian-Catholic view of the war is his as Massis's. War is sent to us by God. "I have understood the criminal folly of our elders. . . . I have understood the warning of the Sacred Heart. Matter [material progress] has turned on us, and crushes us; here is the secret of this war." But "our generation does not want any longer

manichean suicide [matter and mind side by side, for matter must be *subordinated* to mind]: it has found again the truth of Incarnation; our generation wants the spirit to become flesh, and sanctify the flesh, like the Word whom it adores. . . .” Just one more sample of this curious mystic style; Vallery-Radot protests against the word “poilu:” “No, the true hero is much more beautiful than this hairy animal of the false legend; it is humanity itself, which offers itself as a sacrifice in union with the Man made God [*en union avec l’Homme-Dieu*]; it is Passion, which renews itself, even when he [the soldier] ignores or denies it. In these men, crushed under the weight of their work, bleeding from their wounds, soiled with dirt, freezing, how could we not recognize the agonizing limbs of Christ . . . ?”³

II

ECONOMIC DEMOCRATISM

The second constructive theory, because of its technical nature, could not so well appeal to the general public, as one *catholic*; it has been slower to come out for this reason, and also because, although not new among students of social questions, circumstances since the war have not favored its exposition. *Democratism* aims at shifting the center of gravity of our modern conception of the State; on the one hand, discarding the traditional political principles of statesmanship as obsolete, leaving alone as irrelevant, *e. g.*, the question of form of government—monarchy, aristocracy, or republic—that of divine right of kings or natural rights of individuals; and, on the other hand, proposing instead, to organize our societies on a purely economic basis; in simpler words, speaking of the State as of a purely commercial and business proposition.

To initiate the general reading public to such novelties seemed difficult, as long as the realities of war claimed all our attention. Yet gradually, the entrance of America into the war, and the revolution in Russia, procured favorable opportunities to impart to all these ideas, which had before been expressed only with reserve. Of

³ We do not quote here such books, which are advocating about the same views, but in a commonplace way, *e. g.*, Victor Giraud’s *Le Miracle Français*. He is the disciple of Brunetière, but the fact that he endeavors to be so diplomatic in his presentation of the doctrine, makes it appear almost exclusively rhetorical; while his style may touch the masses of the readers, it will leave unmoved the thinker. See, *e. g.*, his discussion of the literature of to-morrow; what an awkward and commonplace way of pleading his cause! Literature of to-morrow will mean a return to traditional classicism in French literature, it will be patriotic, it will not advocate the cult of the ego, but will preach solidarity, it will have religious inspiration—in other words, literature will be exactly what men of Giraud’s opinion would like it to be.

course, Russia's revolution, although democratic at the beginning, led to temporary disaster; but everybody was aware that old-fashioned political intrigues were again at work, and were temporarily veiling the real issue. Moreover, while Russia was apparently shifting away, America's social organization was now looked into with more sympathetic interests; a democratic political rule seemed to be, to say the least, entirely possible.

Even without the war, that theory of state would ultimately have materialized in France, only more slowly. Men like Péguy, if one takes the trouble of reading behind the words of the text, would not at all be opposed to it; indeed Péguy was turned away from what is here called Democratism, only by the petty personal intrigues of demagogues who posed as socialists; his heart was entirely with the people, and he was inclined towards a sort of nationalism, because he saw there one step to get nearer to humanitarian justice to all. Although he had a mystical language, his aspirations were intensely practical; and he was far from ignoring the economic point of view. But the "Papalistes" would hardly join the movement. A proof will be found in Maurras's book *Quand les Français ne s'aimaient pas*. He published there (1916), without changing it, a significant and very curious article, written in 1895, on Bourget's *Outre Mer* (*La France et l'Amérique*). He does distrust America very much: let us admire it with Bourget, he says, but let us remain French.

Should we attempt to trace the economic theory of the State to writers before the war, we would find the most remarkable representative way back in 1836, namely, Auguste Comte.⁴ We must confine ourselves, however, to writers immediately before the war. At least one very striking little book deserves a brief mention, Etienne Rey, *La Renaissance de l'Orgueil Français* (Grasset, 1912). The argument is as follows: The bourgeois of after 1870 was afraid of a war of revenge: "then were formulated the humanitarian and internationalistic doctrines; the leading classes turned their apprehensions into theories and into principles, and their adhesion to pacifism and socialism was only a screen destined to cover their cowardice." But the young felt differently; they did not repudiate the idea of war, which might be a means to regain prestige, and more than that, might bring material prosperity (revival of *l'orgueil guerrier*). Indeed, they shaped a new mentality (revival of *l'orgueil économique*), to gain a leading rank among modern nations; for the France of the future must no longer waste her time in strifes be-

⁴ The most lucid exposition of the economic State—known to the writer—before the war, was Jack London's *People of the Abyss*. He had expounded it, however, before he became the victim of publishers, who, selling his novels well, induced him to give up socialistic studies and devote himself entirely to fiction.

tween royalists, republicans, Bonapartists, and socialists, but must bring about a strong industrial and economic organization. Ferry, with his colonial policy, had shown that Frenchmen thought of such an ideal. Here are a few sentences from Rey: "In modern states, the soldier has had to yield the first place to the industrialist and the business man . . . but it is only since about fifty years ago that the conditions of existence have truly changed for the people." "It is the *orgueil* of figures, of big interests, of large bank accounts, and there are nations which have never known any other . . . , but the economic necessities, the progress of business, the widening of the world-market, and the prodigious development of industry have imposed on all countries this new order of things." Conclusion: "The *orgueil économique* and the *orgueil guerrier* have just joined hands in a same feeling of national pride, and this is surely one of the strongest signs of a French national revival. The problem of socialism is very serious, but socialism, in imposing to the world the marxian theory of history, has been the most useful instrument of the new economic and industrial ideal . . . ; without it, democracy would have remained the narrow, bourgeois monarchy of Louis-Philippe, the republic of wealthy industrials and land-owners." What about the Church and the Neo-catholic movement? "The part of the Church in the past has not been very glorious. . . . The Church has been unable, for forty years now, to take advantage, as well of the periods of anti-clerical politics, as of the periods of tolerance. . . . To-day the Church of France is a great wasted power."

Rey had, in 1912—as had a good many others whom we shall mention now—connected the reform of French organization with the *Action Française*. But there was no necessary connection between Neo-catholic tendencies and the economic development of France; indeed they might be incompatible. In fact, the alliance ceased quite naturally, although reminiscences of the former collaboration might be found.

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Since the war, since 1917 especially, several books have claimed attention, which have sprung from quite different quarters, and these show how the economic preoccupations have taken the lead in the minds of independent thinkers.⁵

⁵ Here again we endeavor to mention only such books as present, in some of their parts at least, clearly and definitely, some original contribution to war literature. This is why we do not deem it necessary to dwell on Paul Adam's *La Littérature et la Guerre* (1916, 131 p.), although evidently that author has a vague presentiment of the orientation of thought towards economic doctrines. The little book is full of platitudes and repetitions, besides a few strong sentences and inspirations, which do not redeem the rest. Adam tries to guess what lit-

Let us begin with Sargeret, *La Guerre et le Progrès* (Payot, 1917), which, although ending on the economic note, discusses rather abstractly the principles involved in the great conflict; he keeps aloof from concrete points of the controversy, so as not to impair impartiality. These pages form certainly the most conscientious attempt to look at things objectively; there are no sentimental biases—patriotic or humanitarian; at the same time, the author is a strong enough man not to betray the cause in which he believes personally, out of fear of not being fair to the cause in which he does not believe (as Bonnet, *L'Ame du Soldat*, or Romain Rolland, *Au-dessus de la Mêlée*). Some chapters are not easy reading; the style is very philosophical, spinozistic; but in such chapters as IV., X., XIII., the author is admirably clear, fearless, and illuminating. He has a special gift for dislodging, with a pointed little sentence, some ideas which stuck in one corner of our brain for no reason but their old age, and which make a considerable difference in preventing us from looking at things straight. Three topics are discussed: the meaning of the war, the meaning of progress, and the relation of war and progress. The *raison d'être* of the book is plainly an examination of the theory, recently defended by German authors, that an organic connection between war and progress exists; the Darwinian theories of the struggle for life, and of the survival of the fittest, being used directly or indirectly, as arguments for the necessity and the excellence of war. Sargeret can not see any connection whatsoever between war and the progress of the human race; and he explodes, one after the other, various view-points, which need only to be clearly formulated to betray their intrinsic absurdity: *e. g.*, that the victor is always superior to the conquered—which presupposes identification of superiority in war with superiority itself; elsewhere Sargeret shows how often, in a struggle, the inferior physically will survive the superior, on account of some quality which accidentally happens to be important; the rabbit, for instance, is more developed than any other being along certain lines, and survived all species, manifestly superior in all sorts of ways. How often does the question of climate, and not ability, settle the question of survival between two species, favoring the inferior race, and killing the better (European, in many tropic countries)! Even in war the stronger physically is not

erature will be to-morrow; and he answers: the era "which will open after this war of nations will probably be the age of *civilisateurs*"—meaning the era when far away countries will be conquered and economically organized; he mentions books on Africa, Tonkin, and other colonies, and one can see that he considers that already some books have foreseen the future of those colonies. He also mentions a curious note found in Flaubert's papers: "the great social novel to write now, since ranks and castes have gone, must picture the struggle, or rather the fusion of barbarism and civilization."

always the survivor; in the Napoleonic wars, the stronger won the battle, but many being killed, the bulk of the weaker survived. The same is true in the present war; it means "*selection à rebours.*" Again the European wars are not wars of races. The races are pretty well mixed in Europe everywhere, anyway; all over Europe there are Brachycephales and Dolichocephales; and see the many people fiercely French in their feelings, with German names, in Alsace. The conflict is on national grounds, not on racial grounds. . . . In conclusion: "War is not a scientific fact, it is only an historical fact . . .; we could identify it with a scientific fact, if it were assimilable to such natural phenomena, which are accompanied by constantly similar effects. Which effect is constant in war? Selection: but selection itself does not select consistently the same qualities for triumph. . . . War picks out its victors at random, as also the principles by which the men in power govern nations are a matter of accident." Thus it is nonsense "to make of war an element of progress. War and progress are two notions not connected, not opposed, but simply alien to each other."

War as an element of progress being dismissed, Sargeret hints at the real problem before modern society. "War can not be ignored, for war remains possible; this is so much so, that the claims of the belligerents consist most of the time in winning favorable conditions, not for coming peace, but for the next war. . . ." War prevents a rational economic organization of the planet by human kind.

What is progress? He takes over, with modern arguments, the theory that everywhere each progress implies a regress, in biology, as well as in psychology and sociology. That economic progress is a progress of civilization, needs no demonstration; it is commonplace, and, all considered, truth. But in a general way only. This economic progress, like all progress, claims a tribute; one must pay; the question is to pay the least possible. And here Sargeret takes up the problem so vigorously dealt with by Rousseau in the eighteenth century, of the price of economic progress in corruption, unrest, dissatisfaction, jealousy, and war. This part of the work is less original; Sargeret just applies to war, and especially to the present war, the ideas developed a few years ago by Haycraft, *Darwinism and Race Progress*, and in France by Demoor, Massart, and Vandervelde, *L'Evolution Régressive en Biologie et en Sociologie*; or Capitaine Constantin, *Le Rôle Social de la Guerre et le Sentiment Naturel*, which is an answer to the German Steinmetz, *War as a Means of Collective Selection*.

Rapid mention only can be made of the following books:

Probus, *La Plus Grande France, la Tâche Prochaine* (Colin) was considered quite radical when it came out, but has since been con-

siderably outdistanced both in outspokenness and in constructive suggestions. His criticisms of prevailing views as regards political administration are strong, his points, when he suggests possible reforms, well-taken. He chiefly advocates decentralization—but the idea that emphasis in the future ought to be laid on economic reforms rather than on politics, is forefelt more than actually apprehended.

The same thing is true of Lachapelle, *L'Œuvre de Demain* (Colin). There are chapters on: La Constitution de 1875; Les Moeurs Politiques Electorales; La Réforme Electorale; La Décentralisation; La Revision de la Constitution. One still feels a temptation to say: that man is putting "new wine in old bottles." (He is also the author of *Nos Finances pendant la Guerre*).

Edouard Herriot, *Agir* (Payot), a collection of articles by a man of action; and the fact that he is referring constantly to problems of the day and to concrete needs, rather than to abstract considerations, has led him to his completely economic attitude. He was one of the supporters of a Paris conference on economic problems, to follow the one on military problems which, on March 28, 1917, decided upon "solidarity in military action." Above all, one must develop the sources of French industry; if, by a *politique minière* more intelligent than our politics up to date, France could develop even part only of the wealth her soil contains, the country could nourish all hopes. And Herriot gives figures. In the reconstructive period after the war, "one law must dominate all the details of the plan, *we must make France rich*." He recommends that his countrymen study the excellent hand-book by H. Hauser, *Méthodes Allemandes d'Expansion Economique*.⁶

Victor Cambon, *Notre Avenir*, very outspoken; he is very interesting, especially because he is a politician by profession, who has been led to believe for the future in politics with an economic basis.

Another politician's book—Clemenceau, *La France devant l'Allemagne*—contains a collection of articles, especially from the famous paper, *L'Homme Enchaîné*, by the fearless Premier, or the "Tiger," as he is often called by those who dread his pen and his political honesty.

One of the most curious books of the war, because of his entertaining way of dealing with really fundamental problems, is Gaston de Pawlowski, *Dans les Rides du Front* (1917). It was written at the front, Pawlowski combining remarkably sober good sense with an imaginative mind; (he had written an *essai sur la quatrième di-*

⁶ By the way, Herriot is one who has been not only the Rousseau of Romanticism, but also the practical Rousseau of political theories (article sur *l'Economie Politique*, *Lettre à d'Alembert*, and *Contrat Social*): "The time has come to re-read Rousseau. Long live the beautiful trades of France!"

mension, with very bold hypotheses, *Inventions Nouvelles et Dernières Nouveautés*—he is a Wells of French literature, with a comic inspiration, and as witty as possible). His criticism is always constructive. One of his favorite topics is the question of coal and oil in France (see, e. g., chapters XXII., XXVI., XXVII.): oil is sure to replace coal; let France protect the oil-fields of Algeria and Morocco; what would be the use of France colonizing these two countries, if the oil-fields are run by German capital, and for German profit?

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Two men have come to realize more fully than those mentioned before, the revolutionary nature of their efforts toward turning politics into the channels of economics. Their books are beautiful; they may not have the conventional esthetic adornments that some expect naturally from artistic books; but they rely entirely on the fine eloquence of facts and figures.

The first is Pierre Hamp, connected before the war with the *Nouvelle Revue Française*. He was also the author of striking industrial novels, *Le Rail* (a railroad problem), *Marée Fraîche* (fishing trade), *Vins de Champagne* (wine industry); and of *L'Enquête*. Since the war he has continued his enthusiastic apostolate; his deification of industry; he has visions of labor solving the problem of happiness in the world, especially in France. His three books are well worth reading. With more conviction than ever, and thinking of the task of the future, he says: "We are face to face with this moral necessity—France must be rich," and France must begin at once to work. "War is transitory, labor is eternal." Pierre de Lanux, in *Young France and New America* (pp. 73–86), has given an excellent summary of the war books in which P. Hamp develops these ideas, especially *Le Travail Invincible*, *La Peine des Hommes*, and *La Victoire de la France sur les Français*. The great problem in France is to substitute, as America did, machinery for men.

But the most vigorous books—which would call to life the dead—are Lysis, *Vers la Démocratie Nouvelle*, and *Pour Renaitre*. This is plain talk, remarkably refreshing and promising, because nobody doubts that the French can do things; indeed their very intelligence and cleverness has often been a temptation to depend on those natural gifts anytime, and has lulled them into that sort of laziness and carelessness which has brought them to the brink of the abyss. In the first volume, the reader will find over and over again such plain statements as this: "We are forced to recognize that this medieval and feudal State (*Etat moyen-âgeux*), for which we profess some contempt, knows so well how to run a government that within

a few years they reached a power astonishingly superior to our own, and Germany beats us completely in all fields of industry and agriculture." There is no possibility of revolting and pouting; Lysis has figures, terrible figures, back of his statements. The conclusion that France ought to copy Germany, he does not accept, however, for the very simple reason that governments which are not autocratic, but democratic, have achieved similar progress along the same lines; the form of government has nothing to do with it—"we have a temperament, aspirations which are our own; the Americans are not German either, nor are the English, the Italians, the Belgians, the Swiss." France must do *what* Germany did, but not *as* Germany did.

One legend which has been blindly accepted all over the world for many years, must go—namely, that France is a rich country. "France is a poor country" because undeveloped; that there is money in France, and capital, is a fallacious argument: "True wealth is not money, true wealth is the means of production." And as French capital is mostly invested abroad, France contributes to the wealth of *other* nations and at her own expense. What must take place after the war, is a *revolution* of French "democratic mentality;" France must change political leaders; the twentieth century "sees no longer men with titles who are in power, but instead sees politicians." *Politicians* must go, and industrial and business men must take their place.⁷ The fact to face is this: the economic war of nations is not on the wane, but is bound to increase; and both employers and employes must join to govern the State (let the reader realize how far this is from conventional socialism).

The second volume, *Pour Renaître*, contains a similar vigorous appeal to sound, practical thinking on "the German progress and the French decline for forty years"—with developments on some special points. The alcohol problem must be dealt with strongly: the drinking alcohol must go (it has done enormous harm to France; in Paris there have been at one time as many as one café for each four houses), but industrial alcohol, alcohol as machine power, must come. To render any fraud impossible, the industrial alcohol must be rendered undrinkable by putting in it something that renders it absolutely distasteful to the mouth.

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Such literature reminds one of one-hundred-and-fifty years ago, when men like Voltaire, Montesquieu, the Encyclopedists, the Phys-

⁷ Part of the remarks about politicians who must get out of employment were censored; enough however, was allowed to stand, so that the reader may continue the argument to the practical end.

iocrats, and Rousseau, dealing with similar problems, brought about the first step of the social revolution; the second step seems to be at hand.

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SOCIETIES

EIGHTEENTH ANNUAL MEETING OF THE AMERICAN PHILOSOPHICAL ASSOCIATION

PERHAPS it is because the war is over that philosophy has felt free to relax, and return as of old to its privileged triflings with eternal things. Perhaps even with the armistice signed, peace genuine and enduring comes only with the perspective of eternity. Certainly there was much less in evidence at this year's meeting of the American Philosophical Association that passionate and purposeful concern with the reconstruction of reality which has been a latter day preoccupation of philosophy. With the exception of President-elect Alexander's eloquent plea for the directive entry into the affairs of men of an intelligence suffused with righteousness, there was complete nonchalance as to the fate of a world which has been only tentatively saved. Philosophers seemed to have felt that they had done their bit (the records of the War Department will bear them out, as did the presence of uniforms at the meetings), and were entitled now to the glorious dissipation of problems at once provocative and insoluble.

Peace was celebrated with irresponsible irrelevance by a revival of the controversy as to the primacy of mind or matter, stated in its modern equivalence, mechanism *versus* vitalism. The admirable clarity and distinction of the discussion would have gladdened the heart of even the most intransigent pragmatist. Besides the chiseled beauty of the discussion he would have found in it the reassuring savor of science.

Three of the leaders, Professors Henderson, Jennings and Warren, were, it goes without saying, specialists, rendering expert and unequivocal testimony from their respective fields of physiological chemistry, biology and psychology. The remaining two, philosophers undisguised, scrupulously avoided encroaching upon fields beyond their professional ken. Professor Marvin, in his capacity as logician and psychological historian of philosophy, exposed to ruthless (the epithet is well advised, as will appear in the sequel) analysis the origins and implications of vitalism. Professor Hoernlé called at-

tention with a valiant and vigorous lucidity to the legitimacy and imperativeness of concepts additive to those of mechanism, which in the incomplete disjunction fashionable in the last decade, have come to be regarded as exclusive of any differential vital categories.

It was instructive to observe that in the case of Professors Henderson, Jennings, and Warren, mechanism was supported upon evidence drawn from just those crucial regions of science which have been the fertile sources of vitalist contention. Professor Henderson adduced the convincing evidence of patterns in physical science, similar in scope to the organization and patterns, which, when discovered in the field of biology, have provoked the vitalist to whisper in hushed awe of entelechies and vital forces. Teleology, organization, patterns, these were convincingly indicated to be as characteristic and determinable features of the organic realm, which has been freely accorded to mechanism, as of the biological realm where they have been held to discredit mechanism irretrievably. Certainly the favorite vitalist retort that the mechanist is missing the point could hardly be made to Professor Henderson, who dealt with those crucial and arresting facts of pattern and organization which have been repeatedly offered in the nature of sensational and conclusive evidence by such vitalists as Bergson, Macdougall, and Driesch.

No less did Professor Jennings, imported from his absorptions with the "perceptual determiners" of the biological laboratory, come to confirm mechanism with unequivocal evidences drawn from the distinctly mooted areas of the biological domain. His presentation was noteworthy, apart from its illumination of the question at issue, for its clean cut definition of the faith and technique of the actually operative experimental scientist. It was a pretty as well as a profound exposition of the organon which guides, the presumptions which control the laboratory logician. The experimentalist pins his faith as he bases his technique on *experimental* determinism, through perceptual or observed determiners. The whole question at issue is whether later perceptual diversities correspond to earlier ones. This conception has been increasingly supported by experimental observation since those early days of experimental biology, when Driesch retreated from the laboratory to a metaphysical despair. There is no case, Professor Jennings insisted, where later perceptual diversities are not preceded by corresponding earlier ones. The idea of equipotentiality is in the realm of biological mythology. The conclusion incontrovertibly testified to by all biological experimentation, that experimental determinism holds true, is valid even if the laws for vital phenomena are different from those of mechanical phenomena. All it demands is a correspondence of later perceptual diversities with earlier ones. It neither implies nor opposes the autonomy of one class of phenomena over another. But

nowhere in the extensive recorded observations of vital phenomena was there to be found a break in the chain of earlier perceptual diversities followed always and accurately by corresponding later perceptual diversities.

Professor Warren spoke on mechanism as revealed in psychology, and showed that the scientist may treat purposive activity, or either of the other teleological modes, as special complex forms of causation falling under the general physico-chemical type, placing them, therefore, within the wider general sphere of mechanism.

At this point Vitalism seemed by implication, and therefore all the more seriously, to be discredited at the hands of purely neutral scientific inquirers offering evidence of an unequivocal nature from their special fields. No one of the scientists called in to offer expert testimony displayed either animus or prepossession—although Professor Jennings's definitive exposition of the logic of the laboratory was an undeliberate piece of propaganda for the spirit and methods of science.

Vitalism was to receive more direct damage than that of implication. Professor Marvin, claiming no more than his accredited function as logical analyst and psychological historian of the thinking of mankind, let the facts be what they might, and from the luminous dispassionate heights of critical analysis, surveyed the origins and motives of the rival attitudes assumed toward the presumably same set of objective facts. Professor Marvin in his purview of philosophies, has seen intellectual creeds rise and fall in response to human purposes and desires, and as expressions of human faiths and frailties. To him the issue is clean cut and conclusive. Nor is it the issue as stated by the two opposing camps. Biological mechanism is part of the creed of science. Vitalism bears all the earmarks of that animism and magic whose painful slow obliteration has been synchronous with human progress. The issue is not between two sets of evidence, but between two faiths. Not between two sets of disinterested inquirers who happened to arrive at different conclusions, but between two passions and enthusiasms. It is the combat between the powers of light and the powers of darkness, in its modern transfiguration, intellectualism *versus* romanticism. It is not two reasoned and documented briefs in support of a conclusion, but two unreasoned desires. It is on the one hand the desideratum of a world ruthless and implacable but controllable by man, and on the other of a world of "peace, calm and absorption in the absolute." The vitalist "wants a world in tune with the heart of man; a world of creative teleological agents." The mechanist "wants a world, simple, controllable, manageable." Vitalism, as described by Professor Marvin, has petulantly given up faith in that already prodigious infant science, without waiting to see what

further wonders it can accomplish when it grows up. If we want man to control his destiny, we must have him self-confident and confident that this is a logical world. Vitalism—for an analytic logician Professor Marvin grew a bit intense—"is a vagabond, a quitter, an adventurer." As parting indemnities for all these analytic vituperations, Professor Marvin amiably admitted that vitalism had done a service by protesting against the ingenuous over-simplification of science, and the discounting of the teleological which has latterly become a recitative of the mechanist's creed.

Professor Marvin persuasively and penetratingly insisted that the root of the vitalist-mechanist controversy was, after all, in the logic of passion rather than the logic of fact. Loeb's and Bergson's major premises were their major desires. One wonders whether this luminous Freudian analysis is not too dangerous a boomerang even for so talented a wielder of it as Professor Marvin. How easy it is to turn this probing of motives back upon its promulgator. In illustration of which: What are the motives behind Professor Marvin's descriptions of vitalism as quitter, vagabond, adventurer? What fears or fervors make Professor Marvin cling with such wistful tenacity to the atomic reals of the neo-realistic logic? What suppressed desires are responsible for the New Naïveté. Freudian analysis is a double-edged sword. It bears a strange and perturbing resemblance to what used to be known under the less intriguing soubriquet of the *Ad Hominem* argument. It lends itself facilely to the "Better than thou art" type of finality. It starts a regress more infinite than inquiries into the First Cause. Freud with his implicit dictum, "Subconscious man is the measure of all things" is Protagoras *redivivus*. It is wholesome to recall that Sophistic analysis came near to reducing the intellectual life of Greece to nihilism. Perhaps Freudian analysis ought to be used with more circumspection and reserve at the American Philosophical Association. Otherwise even mathematical logic may cease to be regarded as dispassionate. Who knows? Even the neo-real world may, to borrow Professor Marvin's felicitous characterization of vitalism, come to be regarded as a form of paranoia.

Professor Hoernlé closed the formal discussion of vitalism and mechanism by bringing up the ultimate metaphysical questions involved, questions involving not the empirical facts adduced by mechanism or vitalism, but the philosophical legitimacy of teleological categories in a world discoverably mechanistic. Professor Hoernlé pointed out with salutary emphasis the fact that mechanical categories are inapplicable even in the realm of biology, that biological facts, in so far as they are distinctively biological, can not be subsumed under mechanical categories. He launched into a much

needed attack on the current "nothing but" methods of explanation, where classes of facts distinctive and unique are held to be, as in the case of vital phenomena, "nothing but" configurations of atoms or what not. Professor Hoernlé convincingly pleaded for the autonomy of teleological categories in biology in so far as the biological facts did display characteristics distinctively marked off from other types of configurations of atoms, such as those in the inorganic realm.

Professor Pratt, when the formal discussion was closed, arose to protest against the false pretenses under which the association had been convened. The symposium had been heralded as a convocation on mechanism and vitalism, and it had turned out to be a pæan of unanimity for mechanism. The only glimmer of vitalism had been that in Professor Hoernlé's paper, and that was "nothing but" a call for philosophical fair play. Vitalism was explicitly defended the second day of the discussion by Professor Montague, who brought up considerations to show that on the very basis of Professor Jennings's "experimental determinism," teleological activity was inexplicable. A brief psychological analysis was likewise contributed by Professor Alexander, this time in vindication of vitalism, which he regarded as an encouraging evidence that the poetic or magical way of conceiving the world—which had its philosophical as well as its poetic uses—was not entirely dead. He welcomed President Calkins under the banner of the poet-philosophers on the basis of her brilliant presentation of the Personalistic Conception in Ethics in her Presidential Address, which was acclaimed by all present to be the most comprehensive and persuasive presentation of the personalistic view of nature that the Association has been privileged for years to hear. Miss Calkins rose, however, to disclaim Professor Alexander's greeting. Psychological analysis was again creating difficulties. Miss Calkins as emphatically objected to the assimilation of the personalistic conception to poetry, as Professor Pratt did that of vitalism to paranoia.

It would be impossible to reproduce in a brief report the atmosphere and eloquence of President-elect Alexander's paper on "Wrath and Ruth," the beautiful and vibrant delivery of which was in itself esthetically precious. It was frankly a propaganda, at once enthusiastic, tempered and righteous. It was, as hinted earlier in this article, a plea for the directive emergence in the world's affairs of an intelligence stirred to the common good. It was a moving insistence that in a world palpably and painfully in the remaking, it was the obligation, as it was the opportunity of philosophy to bring reason to bear, to substitute wrath for ruth. The only dissident voice raised was that of Professor Warner Fite, who, granting the persuasiveness of Mr. Alexander's paper, yet felt that the

novelty of the problems which confronted philosophy was much overestimated by philosophers with a large social sensitiveness. Human beings were still what they had been; reason was still what it had been. The difficulty was merely that in the recent unhappy days, human beings had paid scant or no attention to reason. The philosopher's business was what it always had been; the business and the propagation of reason. The philosophers had nothing to learn. Professor Alexander's passionate retort must be recorded: "If philosophy has nothing to learn from the greatest event in the history of the world, then," rang out Professor Alexander's big Nebraskan voice, "so much the worse for philosophy." It is difficult at the meetings of the American Philosophical Association to detect the intellectual temper of the age. It is pleasant, however, and possibly portentous to record that Professor Alexander is the new president of the Association.

Space does not permit a detailed record of all the papers read at the meetings, nor of the discussions that followed. Else considerable attention might be profitably given to Professor Urban's interesting considerations on the applicability of moral judgments to groups and associations (*qua* groups and associations), to Professor Warbeke's penetrating exhibition of the partial inadequacy of teleology for a system of knowledge, and Professor Pratt's lucid account of the difficult problems of perception raised in connection with the realistic viewpoint, as also Dr. Smith's paper on "Imaginary Inference," and Dr. Roback's on the "Status of Ethics."

Dr. Sheffer's clear but, in the nature of the case, skeletal presentation of the concept of equivalent systems was the most outstanding of the logical contributions. Dr. Sheffer's paper had, besides, a moral significance in that he stressed at once the importance of the science of mathematical logic for philosophy, and the equal importance of restricting its discussion to those who literally knew something about the subject.

The last session closed with Dr. Kallen's paper on "The Definition of Americanism and the Theory of Relations," which laid considerable stress on racial affinities hitherto disregarded, and on the intelligent organization of social relations in the light of these limiting relational facts.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Psychology of Conviction. JOSEPH JASTROW. Boston and New York: Houghton Mifflin Company. 1918. Pp. xix + 387.

The war has been a continual lesson in the psychology of conviction. It showed us at the outset, in Germany, that unscrupulous manipulation of public opinion is a far greater menace to peace than any amount of purely material military preparedness. It proved later, in Russia and Germany, that autocrats fear propaganda more than they fear armies or assassins. It has revealed recently, in America, that what happens in Moscow or Petrograd is often determined, after the event, in the editorial sanctums of New York. It ought to have taught us, everywhere—if we have any philosophy and concern for the future—that political democracy is a delusion unless attended by intellectual democracy. Freedom to cast a vote is pure mockery if the voter's convictions are under some other man's control. Such freedom is only slavery under a new name.

In the *Psychology of Conviction*, then, Professor Jastrow has chosen a supreme theme. Because there is no more vital one in the world to-day, we expect big things of a book that treats it and have a right to judge it by exacting standards.

The plan and method of this volume are as admirable as its choice of subject. It follows the "case" system. In other words, after two chapters of more general introduction, "The Psychology of Conviction," and "Belief and Credulity," the author presents his material in the form of nine concrete illustrations or issues. Five of these ("The Will to Believe in the Supernatural," "The Case of Paladino," "The Antecedents of the Study of Character and Temperament," "Fact and Fable in Animal Psychology," and "'Malicious Animal Magnetism'") have to do predominantly with the "deviations" or "more irregular aspects" of the psychology of conviction. The remaining four ("The Democratic Suspicion of Education," "The Psychology of Indulgence," "The Feminine Mind," and "Militarism and Pacifism") discuss conviction in the making in controversial questions of the hour. On the whole, the emphasis of the volume is decidedly on the matter of personal as contrasted with social conviction and the problems suggested in the opening paragraph of this review are conspicuous by their absence, especially the question of journalistic control of public opinion with its political and economic ramifications. Perhaps Professor Jastrow is reserving all this for later treatment. If so we shall be less inclined to criticize him for practically omitting the dominant figure in his drama: the newspaper. This, however, is by the way. The

point we were making is that the concrete method of the book is precisely the right one: calculated to make the lay reader realize that psychology is not an abstract subject of concern only to high-brows and professors, but one of compelling human interest and importance for everybody.

The temper of the book is in keeping with its main contention: that as rapidly as possible we should substitute the method and spirit of scientific verification for the older and easier methods of believing what we always have believed, or what authority orders us to believe, or what happens to be agreeable to believe. Throughout (save perhaps for a faint trace of animus in the matter of Psychological Research), the author shows a scrupulous desire to view his subjects under all aspects, to weigh the evidence carefully, and to arrive at sane and balanced conclusions. This is especially true of his excellent treatment of militarism and pacifism.

The subject, the method, and the temper of the book, then, deserve nothing but praise. It is a pity that the same can not be said of its style. Not that its style is notably bad. As books on psychology go it is quite the opposite. But a volume like this, with an opportunity of wide appeal, ought to have a notably forcible and vivid style. *The Psychology of Conviction* ought to have a style as concrete as its own case method. It has a style that at times is exasperatingly abstract. Scientists do not seem to realize it, but this is a tremendously important matter. The success of democracy depends on the dissemination of knowledge, and knowledge will never be widely disseminated until the men who have it learn to write more nearly at the level of popular literary expression. If Professor Jastrow showed no power to do this, I should not have mentioned the matter. But he does. In two or three of his chapters, where his material includes much fact and anecdote, he shows it fairly continuously. Elsewhere he shows it more rarely. On few pages is it wholly lacking. He can strike off a telling metaphor, as when, speaking of the effect of confession, he writes, "The mental abscess has been lanced, and relief follows." He has command of irony: "The increasing number of college graduates may always be pointed to to prove the growing enlightenment of the state." He can pack wisdom and satire into two lines: "'Let thy knowledge be another's power,' is a proper text for a baccalaureate sermon that seeks democratic approval." He is capable of epigram: "The man of ideas is not gagged or muzzled, but tethered;" or (when he makes the pacifist reply succinctly to the taunt that his dreams are Utopian), "The alternative is between Utopia and Hell." The man who can write like this has a gift for expression. He has the less excuse,

therefore, for perpetrating such literary atrocities as, "Lord Morley thus protests against what he calls the House of Commons view of life, which subordinates principle to expediency,—which may be unfortunate, but necessary,—but in so doing sacrifices the paramount significance of principle,—which is both unnecessary and pernicious;" for putting plain thoughts with such squirming indirectness as, "Among issues characteristically modern, the controversy as to the true nature of woman and her place in the social order is peculiarly rich in complexity of argument and variability of conclusion;" or for diluting his style by piling up polysyllables (*controversy*, *controversies*, *controversial*, and *uncontroverted*, repeated ten times in the space of three pages is the first example that comes to hand). Literature ought to be *cream*. There is lots of cream in Professor Jastrow's book. But there is also much that is only milk. And there are many sentences suggestive of a still thinner liquid. If the volume were half as long, it would be four times as forcible.

Thought and expression are inseparable; and the harm done by the author's use of abstract language does not stop with the style; it seriously affects the philosophy of the book. This may be illustrated by the use of two words which are as nearly as any its keywords: *logic* and *science* (with their corresponding adjectives).

"The logical sense," says Professor Jastrow, "is the slowest, most laborious, as well as the most precious of psychological growths." "Wisdom is the name for the exercise of the logical function." "Thinking is an art, the art of logic." "Our approach to [the latter day issues] and our faith in them is in the main a logical one." And so on. Now for the purposes of a narrowly professional or technical discussion a man is free to define and use the word *logic* as he wishes. But when he addresses the public he is bound, I contend, to employ words not in accordance with arbitrary definition, but with a sense for their history, their association, and what I may call their present moral character. Professor Jastrow's use of *logic* makes us blink, and ask how many centuries the calendar has been turned back. To attempt, in the year 1918, to pass off *logic* as even a remote synonym for *wisdom*, or to call it the most precious of psychological growths, is on a par with trying to make the word Pharisee the complimentary term it was in Jesus's day, or attempting to impart to the term *pious* the flavor of genuine holiness that it had in church circles a hundred or more years ago. The thing simply can not be done. As well try to give vogue to the pictures of Cimabue. And when the author goes further and half equates *logic* and *science* as in the clause, "It is the prerogative of the scientific method that it enthrones the logical right," he does violence to long-

standing habits that have led us to associate *logic* with the deductive, *science* (in spite of its deductive element) with the inductive method, to think of the age of science as a revolt from the age of logic.

Listen, now, to two or three men with a nice feeling for the past history and the present sense of the word *logic*. "Logic," says Samuel Butler (equally great as psychologist and man of letters), "has no place save with that which can be defined in words. It has nothing to do, therefore, with those deeper questions that have got beyond words and consciousness. . . . In all cases of doubt, the promptings of a kindly disposition are more trustworthy than the conclusions of logic, and sense is better than science." "The poet," says Chesterton (I quote from memory), "tries to get his head into the heavens. It is the logician who tries to get the heavens into his head; and it is the head that splits." "This very law which the logicians would impose upon us," says William James, "—if I may give the name of logicians to those who would rule out our willing nature . . .—is based on nothing but their own natural wish to exclude all elements for which they, in their professional quality of logicians, can find no use." These men have caught the very soul of the word *logic*. If Professor Jastrow had done so, he would not have tried to reinstate in our favor a term that is soaked in formalism and fairly reeks with the odor of scholasticism.

The weakness in the author's use of *science* and *scientific* is of a very different character. Professor Jastrow comes close to apotheosizing science (you wonder he doesn't capitalize it). It is the "sovereign method" and "now that science has entered into her kingdom and the vastness of her domain is willingly recognized . . . the busy problem is the infusion of the scientific method into all our ways of thinking, its application to all the various kinds of beliefs that affect our ideals, our working conceptions, and our actions." And even in those departments of life that are "not ready" for its "exact application," its spirit, we are told, should prevail. Now no one denies that it would be well if the scientist's love of truth could pervade all our life. But why, to the confusion of language and thinking, call this love science? As well call the sun scientific because it gives light; or the moon because it is clear; or a child because it blurts out the truth. What this stretching of the word science to cover all creation is bound to end in has been foreseen and stated by Samuel Butler. "Science," says Butler, "is being daily more and more personified and anthropomorphized into a god. By and by they will say that science took our nature upon him, and sent down his only begotten son, Charles Darwin, or Huxley, into the world so that those who believe in him, *etc.*; and they will burn people for

saying that science, after all, is only an expression for our ignorance of our own ignorance." Butler, himself a great psychologist and biologist, saw the limits of science. One price of not seeing them we have observed on the battlefields of Europe.

This loose use of the word *scientific* follows Professor Jastrow, and, unless I am mistaken, betrays him in his innermost philosophy. It accounts for his failure to distinguish between two vitally different kinds and realms of conviction; it leads him to put his various "cases"—except for the incidental reason that some are settled and some still in the process of being settled—all on one level. Yet the distinction he fails to make is the most important one in the whole world of conviction. Let me illustrate:

Whether the earth goes round the sun or the sun round the earth, depends not one iota on human wishes. But whether democracy is the best form of government for mankind, depends absolutely on human wishes (if you wish to make Prussians, for example, democracy, decidedly, is not the thing). Whether Eusapia Paladino (to come to Professor Jastrow's own case) tipped tables miraculously during her séances in New York, is in no way affected by what we should like to think in the matter. But whether "the feminine mind" should dedicate itself to babies, or politics, or, for that matter, to table-tipping, is a question, fundamentally, of nothing except what we should like. Science may indeed show us what a baby-tending feminine mind will be; or a politically acting feminine mind; or a table-tipping feminine mind. But when it comes to which of the three is most desirable, science has not a word to offer. That is a question for religion, for philosophy, for art—or whatever other name you may give those human activities that have to do with the ends of life. Science (unless we stretch the word in the very way I am condemning) has to do only with the means.

It is the failure to make this distinction that leads Professor Jastrow to say in a passage that is the very heart and thesis of his book: "Viewed retrospectively, the greatest triumph of the human mind was the gradual removal of large areas of belief from the influence of the personal psychology of conviction. Scientifically established truth came to proceed objectively, undisturbed by interest in the outcome of inquiry and determined by the sanction of verification. The gradual disestablishment of the anthropocentric view of the universe culminated in the removal of human desire from its place of dominion in the formation of belief." Though the point is incidental, it is worth noting in passing that the phrase "undisturbed by interest in the outcome of inquiry" is false to the history of science. "If you want an absolute duffer in an investigation," says

William James, "you must, after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool." Perhaps what Professor Jastrow meant was not "undisturbed by interest in the outcome" but "undeterred by the nature of the outcome." That would have been true. And with this important qualification of the phrase "human desire" the whole passage becomes true—of *scientific* belief. But it is anything but true of other kinds of beliefs. The truth there is just the other way around. "Viewed retrospectively," we might say of *religious*, *philosophical*, or *political* belief, "the greatest triumph of the human mind has been the gradual enthronement of human desire in its place of dominion in the formation of belief." In the old days men used to believe that the world, physical and human, was what it was, or what the gods decreed, independent of human desire. Men still believe that of the physical world; but it is the precise mark of the modern man (I refer to no creed, school, or philosophy) that he believes the human world is what men make it; that it is what it is in virtue of human desire—or lack of that desire. It is the glory of science—whenever her limits have been understood—that she has contributed to that conviction. Without her power to serve human desires, she could not, for all the vain babble about truth for truth's sake, survive for a single day.

There are other abstract words unwisely used in this volume besides *logic* and *science*. I can mention only one other case. The phrase, "the will to believe," occurs and reoccurs on these pages, but never, so far as I have noted, in James's sense of "the *will* to believe," the power to *create* by faith, but always rather in the sense of the *inclination* to believe, the tendency to drop into the easy or agreeable belief: an attitude that James, like all virile men, abhorred. Professor Jastrow abhors it too. Why, then, for giving expression to his dislike, he should have chosen to debase James's phrase in a volume that bears James's name on the dedicatory page it is hard to understand.

To sum things up: the capital weakness of this volume is the lack of a fine sense of fitness in the use of abstract words and phrases¹—

¹ The most striking example of this in the volume is perhaps the following: "The mind as the logical instrument depends upon *supporting qualities*. These supporting qualities lie partly in the same field as the logical operations; such are keenness of perception, capacity for detail, sustained attention, ready imagination, range of association, a sense of pertinence, value, propriety, effectiveness. Quite as largely they are in the field of feeling and will, or encroach upon them; such are conscience, persistence, endurance, self-control, and that composite attitude that makes the professional temper." What can be made out of a passage that makes "sustained attention" (which of course is simply will) akin to the logical operations, while "persistence" is akin to feeling and

with the attendant confusion of thought that inevitably results. The reader is at times at a loss to know whether this confusion is in the author's mind or in the unintended implications of his language. Even if it is only the latter, it might just as well, so far as the reader is concerned, be the former.

The emphasis I have placed on this one matter has involved the risk, I realize, of doing grave injustice, through lack of proportion, to the many merits of *The Psychology of Conviction*. I owe the author an apology perhaps for having not so much reviewed his work in the conventional sense as having made it a peg on which to hang an essay on a single aspect of it. Here Professor Jastrow makes an honest and largely successful attempt to popularize psychology, and here comes the reviewer jumping into him for not being even more successful. It is very ungrateful. Well; all I can say is that when you see the right thing being done you want to see it done up to the hilt. That must be the excuse for my procedure, that and what I believe to be the critical importance of the point I have stressed.

Plato taught us that political happiness will never be attained until the rulers of men are philosophers. Democracy means that the people are to rule. Therefore the people must become philosophers. One of the first and most indispensable steps in this direction is that the present leaders of thought should think like philosophers but write like ordinary men. For as that astonishing genius William Blake once remarked: "Truth can never be told so as to be understood, and not be believed," a sentence that would make a good motto for a democratic university and comes close to putting in a nutshell the whole psychology of conviction.

HAROLD GODDARD

SWARTHMORE COLLEGE.

JOURNALS AND NEW BOOKS

PSYCHOLOGICAL BULLETIN: April, 1918. *An Experiment with an Automatic Mnemonic System* (pp. 99-103): D. S. HILL.—A classroom experiment with an automatic mnemonic is explained. *General Reviews and Summaries: Affective Phenomena—Descriptive and Theoretical* (pp. 104-108): H. N. GARDINER.—Seven references are reviewed. *Attention and Interest* (pp. 108-111): W. B. PILLSBURY.—Ten references are reviewed. *Time and* will? To say nothing of other inconsistencies and strange collocations! The passage is a good example of the tendency to make *logical* mean so much that it means nothing.

Rhythm (pp. 111-114): H. WOODROW.—Seventeen references are reviewed. *Correlation*. Thirty-nine researches in which correlation is mentioned are discussed. *Special Reviews*: DeWitt H. Parker, *The Self and Nature*, MARY WHITON CALKINS. Hollingworth and Poffenberger, *Applied Psychology*, HAROLD E. BURTT. *Report*: Courses in Psychology for the Students' Army Training Corps (pp. 129-136). (The delay in the appearance of the Bulletin has permitted the insertion of the foregoing report, which is much post-dated as compared with the present number of the Bulletin. The importance of the report has made this apparent anomaly of little consequence as compared with the value of immediate publications. S. I. F.)

Dumas, Georges, et Aimé, Henri. *Nevroses et Psychoses de guerre, chez les Austro-Allemands*. Paris: Félix Alcan. 1918. Pp. 242. 6 fr. (Majoration temporaire, 10% du prix marqué).

NOTES AND NEWS

THE January number of *Mind* contains the information that those who wish to join the Mind Association "should communicate with the Hon. Secretary, Mr. Henry Sturt, 5 Park Terrace, Oxford; or with the Hon. Treasurer, Dr. F. C. S. Schiller, Corpus Christi College, Oxford, to whom the yearly subscription of sixteen shillings should be paid. In return for this subscription, members receive *Mind* gratis and post free, and are entitled to buy back numbers both of the Old and the New Series at half price. Members resident in America can pay their subscription (\$4) into the account of the Hon. Treasurer (Dr. F. C. S. Schiller) at the Fifth Avenue Bank, 44th St., New York."

JOHN J. COSS, Assistant Professor of Philosophy at Columbia University, returned to his academic duties on February 1. He had been engaged for more than a year in government service as a member of the Committee on Classification and Personnel under the direction of the Adjutant General. For some months Professor Coss served in civilian capacity, and was then given the rank of lieutenant-colonel.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

FELIX ADLER'S PHILOSOPHY OF LIFE

I

FROM discussions of the nature of the good, of virtue and happiness, of social welfare and self-interest, and from the impersonal "consensus of moral consciousness," *i. e.*, of respectable opinion rather than of personal feeling and conviction, to be found in our ethical treatises and text-books (of which I also have been guilty), one turns with a certain relief and fresh interest to such a book as Felix Adler's *An Ethical Philosophy of Life*. Here we have "a philosophy of life growing out of the experiences of a lifetime:" the philosophy of life of an ethical teacher, lecturer of the Society for Ethical Culture, who takes his calling with a prophetic seriousness, enlightened by philosophy and intensified by a pastoral contact with the more tragic sides of life, and whose resolute free-thinking can not conceal a mind passionately religious.

The work is divided into four books, of which the first, consisting of an "Autobiographical Introduction," is possibly the most interesting but the least capable of being summarized. I pass by his search for ethical salvation, which began in Judaism and took him through Christianity, Emerson, Socialism and "social work" (whose social ideal appears to him to aim at nothing higher than raising all men to the level of a respectable, middle-class Philistinism) and note the reflections embodied in the last chapter, on "My Vocation." He has told us that "one of the leading principles to which I early gave assent, and to which I have ever since adhered as a correct fundamental insight, is expressed in the statement that every human being is an end *per se*, worth while on his own account." One of the chief results, however, of a forty years pastorate as ethical teacher has been to give him a strong sense of the inevitable "frustration" which attends more or less all human purposes: frustration, for example, in the married life through bereavement, defective children, or change of character; frustration in self-development, in the difficulty of uniting specialist proficiency with breadth of culture and character; frustration, again, in the attempt to find a moral worth

for life under the worst conditions, such as life in the slums. I wonder whether this chapter may not largely explain Mr. Adler's rather dogmatic rejection of happiness; whether, indeed, the quest for happiness is not condemned less because it is ignoble than because it is futile; and whether he would not admit that the attainability of happiness, *i. e.*, the possibility of so controlling the conditions of existence as to carry out our plans of life, would of itself vindicate the dignity of man. "As viewed empirically," he tells us, however, "the human generations are but accidents of nature, waves on the sea of life, passing shadows. And viewing ourselves in this manner our self-respect goes to pieces. The idea of obligation vanishes. Man's claim to infinite worth is bitterly mocked." Under these conditions the problem for an ethical philosophy is "how to remedy the belittlement of man;" how to affirm his moral worth in spite of his infinitesimal significance as a creature of time and place.

II

The second book, under the title of "Philosophical Theory," sketches the author's metaphysics. A statement of the ethical motive has prepared us to learn that he began his philosophical thinking as a disciple of Kant; and though he has long since recanted Kant, it is with reference to Kant that we can best define his general position. In spite of his thoroughgoing criticism of Kant, I should call him still essentially a Kantian, at least to the extent of giving us what Kant would have taught if he had not been the cut-and-dried person that he was, living in a cut-and-dried century. Nor is his criticism of Kant invariably well chosen; when, for example, he attacks the categorical imperative on the ground of a similarity to numerous other imperatives, such as the primitive *tabu*. Surely Kant, if any one, made clear the distinction between the imperative of reason, which raises the question of self-contradiction, and the force of habit, which raises no questions whatever.

To his general criticism, however, that Kant's thinking was vitiated by an abstract intellectualism and a blind reverence for physical science, resulting in an absolutism grotesque and unreal and a so-called respect for man which respected only an abstract principle, one may cordially assent. Yet it seems to me that Mr. Adler's correction consists precisely in affirming boldly what Kant dared affirm only rather haltingly, namely, the right of the will (as well as of esthetic taste) to rank with the intellect as a final criterion of truth. But we are not to call him a pragmatist. "Exasperation with absolutism does not of itself justify recourse to the opposite extreme [equally exasperating, I presume] of pragmatism." The

point is rather that "science, the work of the intellect, and art and ethics, spring from a common root, namely, the reality-producing functions."

And this means that ultimately all truths, whether scientific or ethical truths, are in some sense *a priori*. As Mr. Adler prefers to put it, they are "functional finalities;" by which phrase he refers to "the independent part played by our mental constitution in building up experience, and in affording us the conviction of certainty, and of reality." But it seems also that scientific thinking differs from ethical thinking. Scientific method consists in combining part with part; and these parts of the universe stand fast as certainties, whatever we may say about the universe as a whole. This was the meaning of Kant's showing that from the conditioned we can not argue to the unconditioned. In ethics there is no possibility of considering the parts by themselves. No single rule of conduct is ever right in itself. "It takes its ethical quality from the plan of conduct as a whole, and without reference to the whole it is devoid of rightness." Briefly, it seems, a fact is a fact without regard to any other fact, but no value is a value apart from a system of values.

If space permitted I should like to contest this distinction, and to show that what is here affirmed of values is, ultimately at least, also true of facts. Mr. Adler uses the distinction as a basis for showing that, while there is no "intellectual bridge" from the sensible world to the supersensible (not to be confounded with the supernatural of vulgar thought), there is an ethical bridge. In other words, the ontological proof for the existence of God, rightly criticized by Kant from his abstractly intellectual standpoint, becomes on broader grounds valid. Not, indeed, for the individual "God" of the older anthropomorphic type, but for the reality of a spiritual universe, conceived by Mr. Adler as a spiritual society.¹ As thus conceived, the spiritual universe expresses the two fundamental demands of all thought, both scientific and ethical: the demands, namely, of a unity which shall be irreducible to diversity and of a diversity which shall be irreducible to unity; mutually irreducible, yet "jointly" imperative. That this statement of principles leaves us with an irrational duality, Mr. Adler is evidently prepared to admit. Since he holds that, in the last analysis, man is incompetent to explain the universe, he prefers to accept a certain irrationality as, for us at least, inevitable, just as he prefers to face evil rather than make a futile attempt to explain it away.

¹ This conception, I should say, is not less anthropomorphic than the older conception, but only more modern and democratic; and one may ask whether a conception of the universe not anthropomorphic could still have a meaning or be true.

The bearing of this metaphysical principle upon ethical relations is indicated by the fact that, while standing emphatically for the independent worth of each person, the author refuses to call himself an individualist. "Individualism" is for him a term of reprobation. It means that social harmony can be explained as a composition of private interests. Such a unity is forever false. It is equally false to conceive the individual as a product of the social harmony.

III

Books III and IV give us the ethical implications of this philosophy as concerned, respectively, with personal and social problems. I must forego the attempt to present the author's ethical views in detail and confine myself to a statement and criticism of the ethical attitude.

The statement of ethical principles has already been given by the author (on p. 117), as follows:

A. Act as a member of the ethical manifold (the infinite spiritual universe).

B. Act so as to achieve uniqueness (complete individualization—the most completely individualized act is the most ethical).

C. Act so as to elicit in another the distinctive, unique quality characteristic of him as a fellow-member of the infinite whole.

The ethical attitude implied in this formulation suggests again a comparison with Kant. As conceived by Mr. Adler, it is the Kantian attitude with an important difference, which he states by calling his own attitude "positive," the Kantian attitude, of course, "negative." For convenience we may say that two questions confront us in the attempt to frame an ethical attitude. The first is, What is to be my attitude towards the material conditions of life—in other words, what moral value is to be attributed to sensuous desire? The second is, What is to be my attitude towards my neighbor? To the first Kant seems to reply, No moral value whatever. The satisfaction of material wants yields happiness, but happiness is morally irrelevant. The categorical imperative is a method, one might say, not so much of extracting moral value from material conditions, as of disposing of these conditions—just as the letter-carrier disposes of his letters, indifferent to the message they may contain, and satisfied if he has delivered them correctly. Mr. Adler is likewise indifferent to happiness. At times, indeed, he seems to be hardly less of a rigorist than Kant. In his little book on *Marriage and Divorce* he goes so far as to say, as I understand him, that it is, not merely unwise but morally wrong, to seek happiness in marriage. But though indifferent to happiness, he is not indiffer-

ent to the material conditions. The earthly life is not something to be simply disposed of by a rule of duty. It is the source of all spiritual possibilities. The supreme ethical end is the development of the spiritual possibilities of the finite world. And therefore the only truly ethical attitude is that of "a cheerful world-builder," who takes an active and whole-hearted interest in the improvement of material conditions—not with a view to happiness, but for the purpose of assisting and developing his spiritual nature. But what is meant by the spiritual nature? Some light upon this conception is given in the chapter on "The Practical Vocations." The activities of industry, which result in the production of material goods, also affect the development of character and personality. How far industrial efficiency may be achieved *pari passu* with the development of personality, and how far it matters, we are not clearly told. But of the two results it is the second, or spiritual, result, which, and which alone, it seems, has ethical value. Such is the significance of the "positive" attitude.

The attitude takes a more distinctive and characteristic form in the answer to the second question. How shall I treat my neighbor? Kant and Mr. Adler agree in replying, Above all, reverentially; as a person, valuable in himself; as an end withal and never as a means only. But how is this respect to be expressed? Kant replies, By letting him alone; at most by consulting his comfort and happiness; his moral welfare is none of your business. And here Mr. Adler objects. Simply to leave your neighbor alone is to show, not respect, but indifference. And to consider only his happiness while you reserve for yourself aims higher than happiness—for example (I should say), to credit him only with a demand for justice in a case where, for yourself, you would prefer to be generous—is really to treat him as an inferior. True respect for another is bound to credit him with moral dignity. And therefore I must "act so as to *elicit*" (according to Principle C) what is best in him. This is the most characteristic feature of Mr. Adler's conception of the ethical attitude.

IV

And it is at this point—on the implications of "elicitation"—that I take issue. With his criticism of the Kantian attitude I cordially agree. There can be, I should say, no true respect for another which does not involve understanding and sympathy; and no true sympathy which does not credit him with his best. But how to take a sympathetic and helpful attitude towards another and yet refrain from trespassing upon his moral freedom—this is a most difficult question. Kant removes the difficulty by dispensing with the sympathy and

helpfulness on behalf of freedom. Mr. Adler, I should say, dispenses with freedom.

In thus laying the burden of emphasis upon "elicitation," it seems to me that Mr. Adler abandons for the time being the principle of personal worth in favor of the more popular ethics of the brother's keeper and the good example. I might urge here the natural bias of one whose vocation of ethical teacher commits him to elicitation, but from this I am spared by remembering that the identification of the moral with the didactic attitude is a trait almost universally American. Among us, it seems that an indispensable mark of a "moral" person is that he "exercises a moral influence." In the older Puritan days, not yet completely past, he was obliged to show a righteous indignation against the evil-doers. The sole evidence of having a conscience of one's own, it appears, is a disposition to direct the consciences of others. It would be very interesting to ask how much of our moral code is made for the use of others. Who is not familiar with the idea that "it would be all right for you and me, but it would never do for the masses"? Or with the fear that a concession to personal freedom, not otherwise unreasonable, would be "liable to abuse."² This rather distrustful anxiety for the souls of others Mr. Adler would extend to one's wife. According to him, the only ethical motive for marriage is the mutual elicitation of moral qualities; never, it seems, the enjoyment of companionship. I agree with Mr. Adler in thinking that Kant's conception of marriage, as a mutual contract to furnish sexual intercourse, is rather horrible, but I should like to ask whether one who made an offer of marriage in Mr. Adler's terms would not be rightly rejected as a prig.

If elicitation of moral qualities means simply that it is my duty in an important crisis to lay before another (preferably a friend) the consequences of the alternatives confronting him and the signif-

²In *Marriage and Divorce* one of the grounds upon which Mr. Adler opposes all divorce is the following: "Moreover, if divorce is granted in the first instance, it can not be refused in the second instance or in the third; and there follow such scandalous performances as those with reports of which the newspapers have of late entertained or horrified the reading public." But, I ask, Let it be so; what difference does it make to you or me? We are not obliged to associate with such persons. It may also be seriously asked how much of the vileness and indignity associated with "scandalous performances" does not lie in just the fact that they are exploited in the newspapers. Let us remember that legitimate marriage would be made vile if similarly exploited. And the further question arises, What if those who used freedom of divorce as an opportunity, say, for an annual remating turned out to be otherwise worthy persons? I do not fear that myself. But, as an honest inquirer, have I any right to fear it? Precisely such a test is needed, I should say, to answer the question whether permanent fidelity is a *sine qua non* of moral character or a mere convention.

icance of his choice as a revelation of himself, well and 'good. A morally worthy and responsible person is bound to be hospitable to such elicitation as long as it promises to be helpful and enlightening. But when I undertake to dictate his choice, it seems idle to claim that I still recognize the principle of personal dignity and worth. Mr. Adler would go as far as this, and further. *If* science should ever be able to show that "the union of certain character-types will lead to an infelicitous marriage"—which, fortunately for the whole philosophy of personality, he doubts—"the state will be justified in prohibiting such unions."³ In Appendix II., treating of the exercise of force, he is ready to employ force, not merely to protect one's own personality from invasion, but to direct the development of personality in others. This forceful moulding of (the other's) character is warranted by "the positive conception of freedom." Alas, that words should play such tricks with us! Would it not be better to say that where we recognize the necessity of restraining others, we admit a difficulty in the way of personal worth as a sole universal ethical principle?

Intimately connected with the ethical question of what it means to treat my neighbor as a person is the psychological question of what constitutes a person. And upon this point Mr. Adler is far from clear—not unnaturally, since the question is one of great difficulty. It is to be noted, however, that he justifies the coercion of one person by another by assuming, as if beyond question, that within the individual life one desire may coerce another. And this justification is fortified by an "instrumental" conception of the personal life according to which some, if not all, of the parts of one's life are to be treated as mere instruments, or means, to a supreme end. This conception of "instrumentality" pervades more or less his whole conception of the ethical attitude. I am to treat another person as an end withal, and never as a means only; myself, however, as an instrument for the ends of society. I am to achieve individuality, but only instrumental individuality. The present generation is to be instrumental to the next. The whole career of the race is to be instrumental to ends that lie in the infinite beyond. Only in the infinite it seems, if even there, may we contemplate the possibility of realization, of satisfaction, of enjoyment; or, if you please, of happiness.

Now this identification of personal with purposive activity and of purposive activity with the use of means for ends, is doubtless a common feature of self-realization ethics, which, as against the hedonist's life of happiness, proposes a life organized for an end.

³ Pp. 307, 371.

I am none the less persuaded that, as a characterization of personal activity, it misses the point. Let it be remembered that to assert the means-to-end principle in morals used to be the distinctive (and opprobrious) mark of the utilitarian. Against him the Intuitionist argued that honesty, for example, was not a means to an end but a good in itself. And this seemed to leave the moral life without coherence and in possible danger of anarchy. Accordingly, the theory of self-realization teaches that honor, chastity and the like, are, not each a good in itself, but connected as features of personal worth; and the moral life is then viewed as a coordinated system of personal activity. But this seems to say that honor is after all only a means to an end; in other words, that self-realization is only a new utilitarianism, in which, once more, the means are justified by the end, the end, however, the perfection of the person rather than his happiness. Such, I should say, is the common way of conceiving self-realization, and it is apparently the conception implied in Mr. Adler's "instrumental" view.

This conception overlooks an important difference. Let cooking the dinner be the means, of which eating the dinner is (at least the proximate) end. To say that the process of cooking is merely a means signifies that value is realized only in the eating, or in the end. If we could get the cooked dinner without the cooking, so much the better—so much the better, indeed, that nearly all who can afford it prefer to employ a cook. In other words, on the balance-sheet of value, the end alone stands for receipts, the means standing for a necessary and unwelcome expenditure. Now, it is surely not in this sense that honor is conceived as "instrumental" to perfection, or development of character. In no intelligible sense of perfection can one be conceived to desire perfection and yet loathe honor. The point is that the conception of end and means implies that the activities or experiences representing end and means respectively are separable in time. Thus only can they be distinguished as ends or means and the realization of value located in the end. In the development of character means and ends are not thus separable. We attain perfection, let us say, not *after* we have practised honesty, but in the practise of honesty itself. The end comes, not after the means, but in the means themselves. This suggests, I should say, that for the relation between the several features of a personal activity the distinction of end and means is meaningless.

An instrument, in plain words, is a tool. I will then venture the suggestion that the conception of instrumentality is a metaphorical derivation from the use of tools; or, more broadly, that the whole

scheme of means and ends is built upon an observation of distinctively mechanical activities, involving the use of tools and the preparation of material. It is here distinctively that ends and means are separated in time—ever more widely as, in modern industry, processes are lengthened and tools become complex machines—and no value is realized short of the end. It is here also that ends and means have the least “organic” relation. It is not necessary that a shoe be made of leather or that leather be made into a shoe; that a man be killed with a knife or that a knife be used only to kill a man. As soon as we pass from mechanical to vital processes the relation is altered. A kitten can develop only into a cat, a cat only from a kitten. So far, however, as the two stages can be given a moral relation, they are not now related as means and end. To say that the child is only a means to the man is true only from the standpoint of “cannon-fodder,” or from the hardly less sordid standpoint of a puritanical rigorism, which looks upon life solely as a disciplinary process and upon childhood solely as a training for maturity. It is scarcely humane, I should say, to treat the child merely as a means.

But in passing from mechanism to life we are approaching personality. Personality begins, it might be said, with the exercise of foresight and the adaptation of means to ends, as manifested, say, in the use of tools. True, but it only begins here. The purchase of ends at the cost of arduous and unwelcome means marks the stage of blind submission to external necessity. The progress of culture stands for nothing more clearly than a revolt against this grinding necessity; and a revolt which is ever, if ever incompletely, successful in reducing the element of necessity. Sympathy with this revolt is part of Mr. Adler’s conception of the ethical attitude. In his view extreme poverty is morally degrading; not because the poor must work and encounter hardship, but because their choices are ever bound by necessity. And modern machine-industry also tends to degrade, because, in dissociating the means so widely from the end, and in associating the worker solely with the means, it makes a tool of the worker himself; because, in other words, his work stands for so little of choice and reflection and for so much of habit and necessity. Here it seems that the instrumental ideal is repugnant to himself.

But how is the element of necessity to be reduced? This is not a simple question, but two points may be noted: (1) In the revolt against the burden of cooking for the sake of eating, I summon my intelligence to the task of reducing the burden by making the process easier and simpler. (2) But the very exercise of intelli-

gence works a change in the character of the task. Along with the saving of labor, cooking becomes an interesting, at least a challenging problem, more or less worth while in itself, thereby less a work of labor and more a work of art. It becomes a "personal" activity. I doubt if Mr. Adler would reject this element from the solution. Let me, however, enumerate some of the implications: (1) In a life governed by the principle of personality no part of life may be a mere means. As a person I insist that every part of life has a worth in itself; every part must also be an end. (2) No desire can be regarded as subordinate to other desires or subject to their coercion: every part of our nature has its rights. (3) And the ideal of life is not mere striving, but also realization—fruition—enjoyment; that is to say, it includes, among other considerations, the rejected consideration of happiness.

As a further illustration of the instrumental motive I may cite Mr. Adler's suggestion for an ideal state: namely, that the state be organized on the basis of vocational groups as a league, or society, of guilds. To me this savors strongly of that German-made state which we are now commanded to detest, and against which, just as a person, I feel called upon to protest. This emphasis upon the vocational motive is another mark of the self-realization theory, which, in setting up against the hedonistic ideal of pleasure or happiness the ideal of "work," tends to make the profession or "career" the chief, if not the sole expression of the person. As a corrective to self-indulgence it has its uses. As a definition of the person it strikes me as narrow, utilitarian, and in a certain measure degrading. As a person I can not consent that my vocation of student and teacher of philosophy shall rule as the determining or dominating motive of my life. I can recognize no moral obligation to prefer philosophers as my friends, to prefer philosophical to other and often more enlivening reading, to listen to a Beethoven symphony from a philosophical point of view, or to look upon my children with the eyes of a philosophical parent. I admit that, in point of fact, I shall be bound to make my profession a matter of chief importance. But bound by what? Again, I should say, by necessity: partly, indeed, by the necessity of earning a living, but no less by the necessity of accepting the conditions offered by the existing organization of society if I am to be personally effective. Those conditions are not more likely to fit my person than a ready-made coat. Even the academic distinctions of philosopher, historian, biologist, chemist, and the like stand less for personal and logical distinctions of problem and task than for a convenient arrangement of academic fences. In brief, the society of guilds may be an

excellent political arrangement for the transaction of business; it is not a unity of persons.

These mark the points at which, I should say, Mr. Adler has not quite succeeded in his "joint" method of driving two horses abreast. His two horses are personality and social harmony. It seems to me that an unconscious deference to popular conceptions of social morality—of the kind already deprecated in his criticism of socialism—has led him to drive the social horse ahead of the personal. But it is not to be expected that any of us will succeed in driving two horses abreast; nor, I fear, that any of us will succeed in driving his philosophical chariot with less than two horses. The criticisms touch the book only in certain aspects. The book as a whole is an impressive presentation of an ethical attitude, and the attitude is marked by nobility of conception, by spiritual insight into the souls of men, and at the same time by a fairly resolute recognition of the facts of life.

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THE APPROACH TO THE STUDY OF MAN

IN Europe, at the present time, we have the exhibit of men struggling with problems of the highest complexity without an adequate equipment of scientific knowledge. Despite efforts which were made towards the end of the eighteenth century, the systematic study of man has been so neglected that in the emergency of to-day we are left without guidance other than the conflicting opinions of a limited group of statesmen. We take a certain pride, just now, in the fact that the war has forced us to look at the problems of mankind from a world point of view; but while our sympathies are going out to the aspirations and activities of the lesser and debatable nationalities, it must be insisted that, if we are to be ultimately successful in promoting the highest interests of humanity, we must be prepared to apply ourselves, with a resolution and earnestness hitherto unrealized, to the scientific study of man.

There is no escaping the fact that such a study presents the gravest difficulties. It is, for example, hard for men to overcome the feeling that human affairs are so dominated by "accident" and by the uncertain motives and wills of individuals that scientific method is here inapplicable. Then, it must be acknowledged, no one of the existing disciplines in our universities has shown the power or disposition to take up the study of man as a whole. The sociologist may demonstrate that logically his subject should embrace and coordinate the results of all humanistic studies, but as a matter of

fact this has not been done. Humanistic learning in the narrower sense (*i. e.*, the classics) provides no avenue leading to a sufficiently broad outlook; history still remains content with its chronological presentation of political events; while anthropology still limits its interest to the less civilized groups of men. On the other hand, it is but fair to reflect that the way is not open for any one existing "subject" in the university to make itself responsible for such a study, since this, of necessity, demands the coordination and co-operation of every discipline which may be included in "the humanities." Again, a further difficulty, of a practical sort, arises from the fact that the recognized division of subjects in the university has not sprung from the needs of scientific study, but is the outcome of tradition, modified by demands for the recognition of new subjects during the last fifty years. The study of man, in short, can be instituted only with the support of each of the separate departments or units into which the "College of Letters" is broken up, for each one of these represents an integral and essential aspect of the inquiry.

The first problem, then, that confronts us, in the effort to obtain recognition for the systematic study of man, is the necessity of making such an approach to the study as will gain the confidence and enlist the support of the different groups of scholars involved. What is to be desired is that the humanistic side of the university should adopt as its fundamental aim, not the separate study of philosophy, of psychology, of anthropology, of history, of geography, of languages and literatures, of economics and political science, but the unified study of man. If, however, this is to be accomplished it can only be through the convincing nature of the approach which may be offered. The cooperation sought can be hoped for only through the presentation of a set of ideas which will enable men working in different lines to see how their individual efforts may be made contributory to a great and highly desired end. It thus becomes evident that the manner in which we may propose to set about the study of man is of crucial importance.

This being the case, it is of significance that in various connections efforts are being made at the present time to mark out lines of approach to the study of man. Of these the contribution of Dr. Goldenweiser in this JOURNAL (October 10 and 24, 1918) bespeaks attention, being a serious effort entitled to consideration in an appreciative spirit.

Dr. Goldenweiser begins by pointing out that the approach desired is not to be gained by discussing the relations of established academic subjects, and proposes that we should turn directly to the facts themselves. This, it seems to me, is essential; we need a re-

turn to the whole body of facts available for the study of man unembarrassed by distinctions which have arisen through the exigencies of university teaching. But the question follows at once: are we approaching the facts themselves when, as the author proposes, we "attempt an analytical conceptualization of the *relations* of such facts" (563). What is meant by this phrase may be explained a little more fully. "An examination of a set of social data, as presented by the historical record or by modern conditions, naturally leads," Dr. Goldenweiser thinks, "to three questions: what kind of data are they? How are they related to one another in time? And what is the connection between them? This," he continues, "suggests three standpoints from which the data can be envisaged: the standpoint of *level*, . . . of *time*, . . . and of connection or *linkage*." From this beginning he goes on to develop a set of eight categories of data (objective-historical, objective-contemporaneous, psychological-historical, psychological-contemporaneous, deterministic-historical, deterministic-contemporaneous, accidental-historical, accidental-contemporaneous) the further description of which constitutes the body of his paper.

What we are concerned with here is not the detailed interest of the paper under discussion, or the wealth of illustration Dr. Goldenweiser is never at a loss to introduce, but the mode of approach which he offers as "an introduction to social science." The point then that seems to me crucial in this connection is that the proposed conceptualization of the *relations* of facts, *before the facts have been subjected to scientific treatment*, is calculated to lead to no sound or valuable result.

An illustration will best serve to bring out the force of this criticism. Dr. Goldenweiser's ultimate objective, in the paper with which we are concerned, is an analysis of the relation of the "deterministic" and "accidental" elements in human history. Briefly, his point of view is that in any given event there are certain "deterministic" elements which we may isolate, but we will also have to acknowledge "there is no denying the overwhelming weight of accidental factors" (606). "The accidental appears, after all, as predominant in history, when it comes to the particular *when, where, how*, and even *what*, of events" (605). "Thus the accidental and the deterministic appear as two inseparable ingredients of the historic process. Leave out the deterministic, and history becomes a hodge-podge of adventitious things and events, a something without rhyme or reason; leave out the accidental, and grave injustice is done to reality, for law and order is then claimed as a fact, whereas it is at best but an aspiration, a tendency, not strong enough to have

its way wholly, but fully strong enough to regulate, and to that extent to control, the stream of accidental fact" (607).

Now, as he himself is aware, what the author does here is to take certain particulars, related in chronological sequence, and reflect upon the nature of the "linkage" (to use his own expression) between them (564). Remark, he is not proposing or dealing with a scientific problem, he is simply looking at certain facts, *i. e.*, events, and thinking about the relation in which one happening stands to the next, in terms of "determinism" and "accident." As a result of this consideration it is obvious that the "accidental" features will preponderate, for the reason that the so-called "deterministic" factors can not be arrived at or discerned by contemplation, they can only be discovered through scientific investigation (if at all), and this, in the subject under discussion, has not been carried out. The approach adopted by Dr. Goldenweiser may lead to the expression of an infinite variety of opinions, in which appeal will be made to the existing body of knowledge, but it will not open the door to scientific investigation and the extension of scientific results, from which it follows that the conclusions reached by Dr. Goldenweiser may be rendered invalid at any moment through new research.

Let us accept the proposal to turn to the facts themselves, but, instead of reflecting upon the abstract relations in which the facts stand to each other, let us ask what sort of knowledge it is we want to gain. As I understand it, every science is engaged in the effort to find out "how things work" in relation to some specific aspect of the world in which we find ourselves. Every science makes the assumption that things in the world we know work in characteristic ways, and that these ways may be discovered by scientific analysis. Hence it is that the students of physics and chemistry, of astronomy, geology, and biology are not greatly concerned in regard to the relations of the sciences, for they are occupied fully in the task of analyzing the *modus operandi* through which the results we observe in nature have been and still are produced.

If we adopt this methodological point of view in the case before us, it will appear that the kind of knowledge we want in relation to man is an understanding of the ways in which things work to bring about certain results. But what results? Here we are in the presence of a difference between the aims of the student of nature and of the historian, for while the former endeavors to describe how any existing condition has come to be as it is, the latter attempts to explain *events*. The difference is marked, and is of the utmost significance in point of method. The one procedure leads to an analysis of the characteristic processes through which existing conditions have been

and are produced; the other leads to views on the "accidental," to opinions on the influence of "great men," to religious beliefs on the place of "God in history." The one method leads on to a more and more complete and objective description of the ways in which things work, the other ends in interpretations which are inevitably personal and emotionalized.

We have before us, in the form of documents and other memorials, evidences of what has taken place in the past. The historian seizes upon these materials and endeavors to "reconstruct the past." What he does is to create for himself, from the data available, a drama of events, and he does this by selecting what he deems to have been the episodes of cardinal importance, supplementing the record by the imaginative reconstruction of the motives of the participants. It is all human and romantic, and, in the hands of a master, of absorbing interest; but the story will never be the same in any two "histories," and the proportions of the "accidental" will vary with every treatment. The scientific investigator, approaching the same materials, will, on the other hand, begin with the present, and he will utilize the facts available in regard to what has happened in the past as so much evidence from which to isolate the various processes through which the existing situation or condition has come to be as it is. As a consequence, the latter procedure gives some hope of an eventual understanding and comprehension of how things work in relation to mankind, whereas the former leaves us with ever-varying statements as to the importance and significance of what has taken place. With this contrast in mind, it will readily appear that the whole question of "accident" and "determinism" in history is an outgrowth of the concentration of attention upon events, and is one that disappears as an essential matter for consideration when once the scientific attitude has been adopted.

The study of man is a fundamental interest for the world at the present time. If we profit from the experience gained in other lines of inquiry, we will see that the urgent need now is to apply the method of science in this all-important field. It may, at first sight, seem impracticable to unify studies in which every branch is distinguished by a special body of fact and a special technique of investigation; but, on second consideration, it will become evident that these differences are no greater than those which characterize the different branches of physics or biology. What we are in need of is an approach to the study of man which will orient the aims of the different "subjects," and show how all our efforts may be made contributory to a common end. What this means is that we require the statement of the scientific problem which lies back of all the data

with which our recognized "subjects" deal. As I conceive it, this problem is contained in the question: "How has man, with all the infinite variety of his activities in literature, art, thought, and handicraft come to be as we find him throughout the world to-day?" But it also means that we require a method in common—the method of science, which may for the humanist be found illustrated in the historical study of language.

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"SCIENTIFIC PREPOSSESSION" AND ANTISCIENTIFIC ANIMUS

PROFESSOR FITE'S clever caricature of scientific psychology, in the December *Atlantic*, like all clever caricature, achieves its end by seizing on a few conspicuous features of its victim; features not necessarily of vital importance; and by skilful exaggeration and subtle misrepresentation of these features, entirely obscuring the victim's real characteristics.

Against such caricaturing it is useless to argue, and undignified to protest. Where the motive is kindly, it is best to laugh with the artist. Where the motive is spiteful, serene indifference is sufficient protection. There is no reason to be concerned over Professor Fite's playing up of the "behaviorism" of a few radicals as if it were the real current of psychological opinion and method. We need not become excited when our caricaturist assumes for his own purposes that the Freudian pseudo-psychology, with its mystical Subconscious and medieval demons of complexes, is accepted by the laborious scientific psychology, slave to dull fact and grinding method, which he scornfully describes in another page. Even when, after telling us that "no one thinks of demanding . . . from the 'expert psychologist' . . . a broad and sympathetic appreciation of literature, a cultivated and instructed taste, and, above all, a thoughtful experience of life," he proceeds, without a verbal blush, to quote from "a recent writer" who is actually one of our best known American psychologists, and who has in a very high degree just this appreciation, taste, and experience: proceeds, indeed, to quote from this "recent writer's" delightful satire on experimental psychology: even then we should merely admire the philosopher's adroitness in juggling with facts. There would be reason for concern if it were probable that the cartoonist believed his caricature to be a veracious portrait; but one hesitates to assume such naïveté of Professor Fite, just as one would hesitate to assume it of Goldberg or one of the other cartoonists of the evening papers.

Professor Fite's presentation of Psychology is, however, not all caricature. The feature which he evidently finds most objectionable is a true and essential feature, although somewhat unfairly represented. It is the uncompromising insistence on *scientific proof*, as against conjecture, popular report, and anecdote, which galls, not only occasional philosophers, but galls also a vast company of mystics, spiritualists, Freudians, Christian scientists, character analysts, and worshipers at the shrine of the thinking horses. Misery makes strange bedfellows, and the misery of those whose spirits rebel at treading the hard road of scientific procedure makes the strangest dream-mates of all. Let us quote from our critic's words:

Psychological Laboratories have been in operation for thirty years or more; and for more than twenty years I have been searching for one fact worthy of consideration—for one "discovery," so to speak, as measured by what they call a discovery in other sciences—for one fact discovered in the psychological laboratory which did not repeat what we already knew, or which required a laboratory for its discovery.

Several years ago I thought I had found a little one. A distinguished psychologist, in a public lecture which I attended, was explaining the value of the psychological laboratory. We all know, he said, that imagination may be mistaken for reality, but it required the laboratory to show with scientific certainty that reality could be mistaken for imagination. I can give only a rough outline of the experiment reported. The subject is seated facing a screen of ground glass, behind which, unknown to him, there is a projection-lantern, and in the middle of which, if I remember correctly, there is drawn a circle of a few inches in diameter. He is told to look at the circle and to imagine that it is red. Presently the area of the circle begins to be tinged with red; and since he is unaware of the fact that a projection-lantern is being operated behind the screen, he takes this reddish tinge to be the product of his imagination. Thus we prove, by scientific method, that reality may be mistaken for imagination.

I will admit that, as I walked home after the lecture, I felt that I had received a demonstration. The "discovery" was not precisely awe-inspiring, but did it not amount to a vindication of scientific method? How could one have unearthed such a fact except in a laboratory? Then I suddenly remembered. A few evenings before, it had happened that my wife, who was sitting in my study reading, had laid down her book, assumed an attitude of listening, and then, taking up her book again, had remarked to me with a smile that she was so accustomed to listening for the baby's cry that she often heard him cry in imagination when in fact he was quiet. Whereupon, having imagined the same thing myself, and doubting that we could both be victims of imagination, I opened the door and discovered that the infant was really crying. Here then it was demonstrated, in the heart of the household, with no apparatus except a baby, yet with all the scientific rigor that one could reasonably desire, that reality may be mistaken for imagination.

To those who have studied the "proofs" of spirit communication, levitation and materialization; who have waded through the older animal psychology and the early monographs on child study;

and who have patiently analyzed the documents of the Freudian propaganda, Professor Fite's naïve reactionary method of accumulating data is distressingly familiar. It is such a simple, easy, method! Any one can use it, and—most gratifying of all—can prove by means of it exactly what he wants to believe.

Professor Fite would prove a presumably important fact of the relation of perception to imagination by an anecdote: by an observation he believes he made in the immediate or remote past. Sir Oliver Lodge would prove the possibility of communicating with the dead by certain incidents which he believes came under his observation. Professor Barrett, in the same way, would demonstrate the marvelous efficiency of the divining rod. Christian scientists of undoubtable sincerity relate anecdotes of the uniting of broken bones through the reading over the patient of a few pages of Mrs. Eddy's Book. Various observers of animals have constructed entertaining theories of the "animal mind" on the basis of anecdotes vouched for by reliable persons. And all these apostles of the Easy Way protest that it is silly to insist on scientific demonstration of the phenomena they declare they have observed by merely "keeping the eyes of the mind open," as Professor Fite so neatly puts it.

Against this flood of superstition, which has, from the remote past, beaten upon our slowly emerging civilization, there is no strong bulwark except the *scientific method* which the mystics would so lightly sweep aside. We may admit that many psychological beliefs which are popularly held are correct, although not scientifically verified. Many other beliefs are false. What shall decide between the true and the false? Are we to assume the theories we like, and deny those we dislike? It is here that scientific method is indispensable.

Scientific method, as it applies to the experimental sciences, and specifically as it applies to experimental psychology, is very well illustrated by Professor Fite's story. Scientific method does not accept the mere statement of what is believed to have happened. It demands an arrangement of the conditions such that there is reasonable freedom from doubt that what is reported is what really occurred. Most important of all, it requires the statement of conditions under which the observation can be deliberately repeated. Neither of these demands can be fulfilled absolutely, but their fulfillment must be approximated. Mistakes are constantly being made in spite of the method, yet by repetition these mistakes are corrected.

Professor Fite's observation is of the class to which belong the anecdotes which "prove" the occurrence of telepathy. The factor of coincidence is not eliminated. It might be that the crying of the babe was really heard: it might be that it was only imagined. The

fact that the babe was actually crying at the time is no proof that it was heard. What really lends plausibility to the inference is the scientific demonstration of its possibility. The experiment of the "distinguished psychologist" is far more conclusive, and since it can be repeated by any competent experimental psychologist, and the conditions even more carefully checked, it is the initial step in proof. If any importance attaches to the alleged fact that perception can be taken for imagination, its psychological demonstration is indispensable, in spite of a thousand unchecked inferences from the daily life of philosophers and others.

This fundamental need for scientific method is something that mystics and apostles of the occult find it very difficult to grasp. Writers on spiritistic phenomena are constantly deploring the skepticism of scientists, and branding it as unreasonable. Why, they ask us, do we refuse to accept the circumstantial anecdotes of phenomena transcending the known laws of nature? Was not the acceptance of radioactivity as revolutionary as would be the acceptance of levitation or telepathy? They do not understand that the existence of radium would never have been accepted on the mere statement of the Curies, or on the statements of a dozen scientists. Nor do they understand that any phenomenon, however occult it seems now, would be admitted at once, if it were demonstrable through the indispensable method of scientific procedure, as was the existence of radium.

When one considers the important contributions which psychology has made, not only to pure knowledge, but also to applied sciences, one wonders where Professor Fite has been searching "for more than twenty years" with so little result. (It would be cruel to inquire what striking discoveries have been made by him and other philosophers in the same period.) For the guidance of those critics who really wish to see a sample of what the scientific method in psychology accomplishes, we suggest that they watch for the reports which will presently appear on psychological work in the various branches of the army and navy. Here will be found a brilliant record of the practical accomplishments of psychologists, most of whom were taken directly from their laboratories, and faced with the necessity of solving practical problems in short order. Remarkable as the accomplishments were, they would have been even greater if it had not been for the inhibitions of unscientific men in positions of authority, who, like Professor Fite, preferred guesswork to scientific certainty.

Because of the successful practical application of the results of psychological research, in education, business, medicine, and many other departments of activity; and especially because of the impulse

given to applied psychology by the war, there is indeed danger that the pure research of which Professor Fite speaks contemptuously—research conducted for the purpose of ascertaining facts regardless of application, which is the primal flame from which alone the fires of applied science are lighted—will be dangerously neglected. In the past the greatest obstacle to successful application has been the urgent demand therefor, which has led to the premature use of principles, and has opened a field to a company of fakirs—character analysts and self-made “experts”—who have tended to discredit scientific work. Unless more adequate provision is made for pure research in experimental psychology, the progress of applied psychology in the future will be much retarded. One of the greatest benefits which could be conferred upon the nation at the present moment would be the foundation of an institute for psychobiological research on a scale comparable to that of the Rockefeller Institute and other institutes for applied science.

Rich as is the field for psychological research, and important as are its applications, the results must ever be disappointing to those who expect thrills, and “discoveries, so to speak, as measured by what they call a discovery in other sciences.” Psychology deals with the mind: yes, psychologists still claim that: and with the physical and physiological phenomena which are closely connected with mind. Mind is the common possession of the human race, at least, and there is no reason to assume the existence of any mental properties or processes so hidden from the innumerable possessors of mind that if discovered they would be such novelties as were Hertzian waves and radium to physical science. In fact, an important part of the work of scientific psychology is to demolish the thrilling “discoveries” of amateur psychologists—such “discoveries” as subconscious “complexes,” telepathic communication, and dogs with super-canine intelligence.

Psychological research finds its work less in extending the field of knowledge than in bringing order out of the chaos within the field, a duty in no wise less important than the other, but more laborious, and lacking in appeal to the poetic imagination. Psychology will always be disappointingly dull to those who have not the “scientific prepossession,” the “prepossession” that no labor is too hard, no course too long, if it lends to the ascertainment of truth.

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PREDICTION AND SPONTANEITY

THE two functions of the intellect are "to describe" and "to reason." The difference between them is that "to describe" relates wholly to that which we have experienced, while "to reason" means to go from that which we have experienced to that which we have not experienced. It is reason which permits us to predict.

Both description and prediction are statements about phenomena, but there is a radical distinction between them. Description relates to the past and therefore it can be accurate, because the past may have come within our own experience, but prediction relates to the future which has not yet come within experience. We describe the past, we live the present, we predict the future. Under what conditions then can prediction be accurate?

Accepting the idea of cause and effect, without analyzing the philosophical meaning of these terms, we may say that if the cause is known, reason can predict the effect. But as a prediction involves the passing of time between it and the phenomenon predicted, this time must not introduce any cause not known at the time of prediction, otherwise the effect can not be predicted because all the causes are not known. Hence it may be said that the prediction of a phenomenon will be accurate in just the proportion that the time between the prediction and the phenomenon predicted is negligible as a cause. This happens in the inorganic world. If I pour acid on a metal the reaction is the same, whether I do it now or wait a week and then do it. Of the inorganic world it may be said that once we know the cause of a phenomenon our experience shows us that the passing of time does not alter this cause. This is all that we mean when we speak of the immutable laws of Nature. But this is only true of the inorganic world; it is not true of the organic world, and especially it is not true of human beings.

Let us now consider spontaneity as it shows itself in us. I shall define the spontaneous act as an act, *all* of the causes of which do not come into existence until the very instant of the act. Our spontaneous, or free, act is an act which is caused by the whole of our experience up to the instant of the act. Manifestly such an act can not be predicted. To predict, one must know all of the causes, and from our definition of the spontaneous we should have to wait until the very instant of the act in order to know all of the causes. But if we did this we could not predict the act, we could only describe it, because it would then belong to the past, not the future. Of course we do not always act freely; habit and reflexes determine many, if not most, of our acts and when they do our acts can be predicted.

But when we do act freely, or spontaneously, prediction is impossible.

Many people believe that our inability to predict in this field is due to a temporary ignorance of biological laws, which ignorance will disappear in the future. This belief is due to a fundamental misconception of the influence of time on our reactions. Prediction is most accurate in the sciences of logic, mathematics, astronomy, physics and inorganic chemistry, and is least accurate in biology, political economy, sociology and history. In the former, spontaneity, as I have defined it, does not exist; but in the latter sciences, dealing as they do with the living, spontaneity is bound to enter often and spoil our predictions.

The existing state of our biological knowledge has nothing to do with the case. Whenever there is spontaneity, we fail in our predictions, and must always fail, because then the time between a prediction and the phenomenon predicted can not be ignored without destroying the accuracy of the prediction.

A. A. MERRILL.

PASADENA.

REVIEWS AND ABSTRACTS OF LITERATURE

The Good Man and the Good: an Introduction to Ethics. MARY WHITON CALKINS. New York: The Macmillan Company. 1918. Pp. xx + 219.

Miss Calkins has given us here an excellent brief psychological introduction to ethics. The discussion is condensed, clear and acute in its discriminations. The first seventy-five pages deal with the meaning of the terms "the good" and "the good man;" the hundred pages following discuss the virtues—thrift, abstinence, courage, prudence, truthfulness, justice, generosity, obedience, non-conformity and pugnacity, with a very brief chapter contrasting the moral with the esthetic and the religious experience. Thirty-five pages of notes and bibliographical references, and a careful index, conclude the volume.

Pedagogically, this arrangement leaves little to be desired for those who are interested in the psychology of morality. It is perhaps a bit too schematic, and the discussions too abstract, to attract the "general reader"—who is fed in these days on every hand with excitements and exigencies, and drawn irresistibly into the arena of practical decision. Indeed, the drift of current opinion seems to be that college students, in ethics courses, ought to be considering concrete moral *problems*, rather than—or, at least, in addition to—the nature of instinct, will, and the "virtues." It is being widely doubted whether these psychological discussions—as well as the re-

moter metaphysical discussions which Miss Calkins herself avoids—throw much light upon these actual problems of conduct which confront us. Men of the most opposite metaphysical and psychological theories agree in their practical attitudes, while members of the same school as regards “theory” differ diametrically in application. The natural inference seems to be that what is needed for moral guidance is not so much a correct analysis of the sense of duty, or an understanding of the instinctive roots of the “virtues,” as a mass of information concerning the *possibilities* of action in a given situation, and the *results*, immediate and far-reaching, to be expected from these possible courses of action. Common sense and normal human good will can then be trusted, without raising fundamental questions, to make far wiser decisions than acute philosophical analysis which lacks a comprehensive knowledge of the bearings of the concrete situation.

When Miss Calkins does bend to a few words of practical application, what she has to say is extremely pertinent and wise. The remarks on the importance of truthfulness; on the danger that besets truly loving parents and spouses, of “nagging;” on the problem of distributive justice, are indicative of the great practical value that a development of the volume along these lines might have. Perhaps a future enlarged edition may include more pages like these.

The best piece of analysis in the volume, however, is the “double-self theory” of the sense of duty, or “experience of obligation.” “The consciousness of obligation is the experience of self-compulsion. And the explanation of the paradoxical combination in the moral experience of the seemingly inconsistent factors of submission and freedom lies precisely herein: in the fact that the law to which I submit is neither an inexorable nature-law, or uniformity, nor yet an external social law—the imposition of another’s will—but is, rather, the law, the imperative which I, as ruling self, impose on myself, as compelled self” (p. 13).

Morality, according to the view here presented, is subjective: “A man is good or bad, moral or immoral, according as he wills or refuses to will what is to him, and not to any one else, the good. There are therefore no objective criteria of a man’s goodness or badness” (p. 35). The doctrine is that of “the good man as he who wills that which he conceives as a self-sufficient aim” (p. 37). This turns out, indeed, to be only a verbal relativism, for, though “it follows that men with different views of the good are equally moral, it by no means follows that these men’s views of the good are equally adequate. Therefore the moralist, though he must judge a given man good or bad according to the man’s own standards, must, on

the other hand, attempt to estimate both the man's conception of "the good" and also the methods by which he tries to realize the good by comparison with other conceptions and other methods" (p. 38). It is not worth while to quarrel over terms; but to the present reviewer the exclusive or dominant use of the phrases "the good man" and "morality" in the subjective sense seems out of harmony with ordinary usage, and therefore needlessly misleading.

The discussion of hedonism in chapter V will seem to some the weakest point in the argument. Universalistic hedonism, the doctrine that the greatest happiness of the greatest number is the proper criterion of conduct, is condemned for its "narrowness." The only description of the good which is broad enough is that which describes the good "not in terms of any one kind of consciousness," but as "the fullest expression of every capacity, the freest exercise of every activity of the whole universe of selves" (pp. 78-79). There is a confusion latent here, is there not, between the concrete activities that we are to call good, and that which makes them good. Certainly, all sorts of concrete acts are good (if not "the fullest expression of every activity," which is surely saying too much, since some activities are clearly undesirable). But *why* are they good? Many of us will still believe that it is because they tend to bring happiness to (or to banish unhappiness from) some one somewhere; or because the breaking of the code that enjoins them has dangers for human happiness. At any rate, it is not clear that the "broadest" criterion must be the truest; and utilitarianism can hardly be disproved by calling it "narrow."

If one more objection may be permitted, where so much is above criticism, it must be to the assurance with which a particular view of the nature of religion is presented as unquestionably true. "The object of the religious man's experience is a self, or selves, greater than himself or than any other human self. This statement may be made with great confidence" (p. 171). Must the object of the religious man's experience be "a self, or selves"? That is, no doubt, the received opinion, and the outcome of Miss Calkins' own metaphysical outlook. But surely the views of those who hold otherwise—as, for illustration, Dr. Stanton Coit, in his illuminating discussion in *The Soul of America*—should not be so summarily rejected, least of all by a philosopher of the judicial and generous temper which we well know the but just now president of the Philosophical Association to possess.

DURANT DRAKE.

The League of Nations, To-day and To-morrow. HORACE MEYER KALLEN. Boston: Marshall Jones Co. 1919. Pp. xx + 181.

This is a timely book. When the war suddenly terminated, few had been seriously considering what must form the structure of a lasting peace. A group of men in New York City had been more far-sighted. For over a year "a body of men of affairs, university men and journalists, mostly editors," had been considering together the economic and political aspects of the problem. They appointed a committee consisting of Mr. Ralph S. Rounds, of the New York Bar, and the author, "to organize and conduct an investigation, of which the result is the present monograph" (p. vii).

The book consists chiefly of a "Protocol for a League of Nations" and arguments upon its various articles. The scheme, which has been worked out in elaborate detail, is claimed to be in the spirit of President Wilson's state papers and addresses, which are cited in its support. The protocol begins with the "purposes of a league of nations" which are: "(a) to assure to its members and their peoples security, freedom, equality of economic and cultural opportunity and thereby to maintain lasting peace;" and "(b) to create and maintain whatever agencies may be necessary to effect these ends" (pp. 18, f.). All nations are to be eligible for membership in the league, their voting power to be determined on the basis of their political and economic organization, their actual economic and military resources, the democratic character of their governments, and the literacy and size of their populations. The government of the league would consist of an International Council, composed of representatives from the various states, elected by popular vote on the basis of proportional representation, together with other bodies subsidiary to it. With this council would rest the duty to enforce peace on recalcitrant nations, to punish international offenders, and to avert wars. The council would delegate powers to eight commissions which would exercise supreme control within their respective provinces, *viz.*: Armaments, International Commerce (with seven sub-commissions), Central Africa, International Finance (with sub-commissions on Credit and Political Loans), Education, Undeveloped Countries, International Hygiene, and Labor. There would also be an International Court, consisting of twenty-five judges appointed for a term of seven years. Appeals could be taken from the decisions of this Court to the International Council itself.

It is impossible within the limits of a book review to outline further the details in this scheme of international federation, much less to state and discuss the arguments advanced for them. The precautions necessary to assure the permanently democratic charac-

ter of the league are carefully thought out. The same is true of the provisions to secure fair play in international commerce, to prevent the evils of secret treaties and diplomatic intrigue, and to protect backward nations from unjust economic exploitation, while at the same time affording them opportunities for the development of their natural resources. In general, the spirit of the book is fine. It may appear ungracious to criticize it at all. However, it seems to me that the scheme, while desirable in the main, is too ambitious in what it expects the league to undertake at the outset. It is true that the commissions proposed have precedents in the control of commerce, food, raw materials, banking, *etc.*, made necessary during the war. But do we love government by commission so well, and has it thus far proved so successful as to warrant continuing in times of peace, and for practically the entire world, the permanent regulation of commerce, banking, labor, and even education, along the lines suggested by the analogy of our own Interstate Commerce and Trade Commissions?

On the whole, might it not be prudent for the League of Nations to begin with a more modest programme? Were it to fail because it attempted too much at first, the idea of an international federation would become utterly discredited, perhaps for generations to come. On the other hand, if the League can succeed in handling a few matters of importance during the present generation, the world will thereafter be glad to give it larger powers and responsibilities. But this is only my personal reaction. The book ought to convince every one that some sort of a League of Nations is an immediate necessity; and doubtless it will be all the more helpful to many because it is so thought-provoking that they will be unable, at least on first consideration, to agree with some of its details.

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JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. May, 1918. *Scientific Method in Philosophy and the Foundations of Pluralism* (pp. 227-273): C. A. RICHARDSON. — New realism, or scientific method in philosophy, is here contrasted with pluralism, or the genetic method. The points of difference are those touching the existence of the self, and the meaning and validity of the objective categories of experience, *viz.*, causality and continuity. The error of scientific method is that it considers things objectively in abstraction, taking into account only the objective side of experience. It can thus only be descriptive, never explanatory. New realism ignores the existence of

the self, or at best considers it merely an inference. Pluralism takes the existence of the self as an initial explanatory hypothesis based on the concrete realization of our own existence. From this it works outwards to an explanatory account of continuity and causality, categories which for new realism are merely descriptive. *The Social Nature of Thinking* (pp. 274-295): J. E. CREIGHTON. — Maintains that "the notion of the isolated individual is as inadequate and misleading when taken as a basis of logic as by general assent it is acknowledged to be when employed to explain the moral, political, or religious experience of the individual." Thinking is a joint enterprise at every stage of its procedure, and is comprehensible only in the light of its social relations. It presupposes an organic relation of the individual mind to other minds and also the relation of the individual mind to the external order of nature. *Reviews of Books*: John Laird, *Problems of the Self*: R. F. A. HOERNLÉ. William M. Salter, *Nietzsche, The Thinker*: WILBUR M. URBAN. Isaac Husik, *A History of Medieval Jewish Philosophy*: NATHANIEL SCHMIDT. Henry Maudsley, *Organic to Human-Psychological and Sociological*: J. E. BOODIN. *Notices of New Books. Summaries of Articles. Notes.*

Parker, G. H. *The Elementary Nervous System*. Philadelphia and London: J. B. Lippincott Company. 1919. Pp. 229. \$2.50.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held in London on January 6, 1919, President Wildon Carr in the chair. Mr. C. D. Broad read a paper on "Mechanical Explanation and its Alternative."

Controversies between mechanistic and non-mechanistic biologists suffer, he said, from a lack of clear definition of what the opponents mean by mechanism. The case is also prejudiced by confining the controversy to biology and not raising the same question about chemistry and other advanced sciences.

Mechanism must mean at *least* obedience to the laws of motion or some substitute which reduces indefinitely near to them for moderate velocities. This condition is summed up by the form of Lagrange's Equations and the form of the function T and the nature of the variables in it. But this is never a sufficient condition of mechanism; for it leaves open to the functions on the right-hand side of Lagrange's equations all sorts of forms and all sorts of variables. According to the different limitations imposed on their functions and their variables, different senses of mechanism emerge. Five senses are distinguished; the two least rigid are "macroscopic," the remain-

ing three are "microscopic" in Lorentz's sense of these words. If the more rigid forms hold at all they must hold microscopically, for it is certain that they do not hold macroscopally.

Microscopic explanations need not be mechanistic. Only the less rigid forms of mechanism are necessary for scientific explanation, and they are not necessary for any profound metaphysical reason but because (a) we can only accurately measure directly geometrical magnitudes, and (b) we can not deal with a multitude of complex irreducible laws. Even the most rigid form of mechanism might, however, be true if we carry our microscopic analysis further than it has yet been carried.

The main advantage of pure mechanism would be a unification in our theories of nature. Without it science is perfectly possible, but will take the form of a hierarchy of laws of various degrees of generality; the more special of these will not be deducible from the more general.

When account is taken of secondary qualities it is seen that pure mechanism can not be the whole truth even about the non-mental part of the world. There is no necessary conflict between teleology and mechanism; and the ultimate cause of the special structure of teleological systems is inexplicable with or without mechanism.

The annual meeting of the Western Philosophical Association will be held at the University of Iowa, Iowa City, Ia., April 18th and 19th, 1919. In accordance with the plan usually followed by the association, one session will be devoted to the consideration of a single subject. The subject which the executive committee have chosen for this year's discussion is "The Function of Philosophy in Social Reconstruction." At the remaining two sessions an opportunity will be given for members to read and discuss papers on other philosophical subjects.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

LOGIC AS THE SCIENCE OF THE PURE CONCEPT

OUT of Italy, after the lapse of nearly two centuries, has come another great system of philosophy. The tradition founded by Leonardo, that grew so wonderfully down to the time of Vico's *Scienza Nuova* (1722), has not been dormant since; and nearly every page of the *Logic*¹ of Benedetto Croce attests the fact. His system as a whole is the most courageous and commanding attempt that has yet been made to systematize the values that make up man's world (and he does not honor the distinction between judgments of fact and judgments of value).

Although, in expressing his thought, he constantly uses Kantian and Hegelian terms, and even credits the discovery of the central conceptions of his *Logic* to these two German idealists, an impartial comparison reveals that the new doctrine is far less Prussian than Italian, far less Teutonic than Hellenic. Kant and Hegel have few critics who are at once so appreciative and so deadly: they have had few followers who knew how to both prize and appraise the logical *a priori* synthesis and the Idea as does this interpreter of them. Croce himself regards G. B. Vico as his immediate predecessor in teaching the main thesis of this logic, the thesis that the pure concept, the definition of the pure concept, the individual judgment, the logical *a priori* synthesis, and perception, are one and the same thing, that philosophy and history are identical, and that there exists neither *Ding an sich* nor transcendental ego. Writing of the Kantian *a priori* synthesis, he says: "This synthesis is the unity of the necessary and the contingent, of concept and intuition, of thought and representation, and consequently is the pure concept, the *concrete universal*;" and then he adds, "Kant was not aware of

¹ *Logic as the Science of the Pure Concept*. By Benedetto Croce. Translated from the third Italian edition by Douglas Ainslie, B.A. (Oxon), M.R.A.S. Macmillan & Co., Ltd., London, 1917. Pp. xxxiii + 606. The first edition appeared in 1908, after the author's general position had already been defined before the Academia Pontiana in 1904 and published in the *Transactions*, Vol. XXXV., 1905.

this." Instead of developing the thought of his genius with a mind free from prejudice, Kant let himself be vanquished by the abstractionism of the time. In this way, the apriority of the intuition led him, not to art, but to mathematics; the apriority of the intellect led him, not to philosophy, but to physics; "hence the impotence which afflicted that synthesis when confronted with philosophical problems" (536). Again, "The logical revolution effected by Kant consists in this: that he perceives and proclaims that to know is not to think the concept abstractly, but to think the concept in the intuition, and that consequently to think is to *judge*" (570). And then, for a brilliant page, Croce goes on to point out the inept misunderstandings of the *a priori* synthesis to be found in the pages of Kant. "Not even in Hegel is there to be found the elaboration of the doctrine of the individual judgment, nor is its identity with that of the concept explicitly recognized" (572). One almost forgives the author's sentimental admiration for these Germans, in view of his own masterly handling of them. "The synthesis is the palpitating reality which makes itself and knows itself in the making: the Kantian philosophy makes it rigid again in the concepts of the sciences; and it is a philosophy in which the sense of life, of imagination, of individuality and of history, is as completely absent as in the great systems of the Cartesian period" (536).

Meanwhile, Croce's *Esthetics*, his *Philosophy of the Practical* (Economics and Ethics), and the present work, taken together, complete the circle of man's spiritual activity; they set forth a realistic methodology of life, and so of the universe in which it is lived. A more noteworthy synthesis has not been attained by the present generation: the total result is monumental.

Our author refers to his own philosophy as a system, but it is a system only in the sense of a systematic methodology, or real logic. In a sense he is a critical philosopher, but his conception of knowledge resembles Leonardo's celebration of the seeing eye, the intuitive science of Spinoza, the rational perception of Campanella and the intellectual intuition of Rosmini. In Italy these terms have always had meanings quite different from the same terms in Germany, where the prevailing tendency is to take them stiffly and abstractly after the analogy of physical energies and mathematical concepts. One feels that Croce's generous praise of the Germans, while criticizing their usage of these terms, will go a long way toward realizing the translator's hope, that this book may "serve to point out to the Anglo-Saxon world where the future of the world's civilization lies, namely, in the ancient line of Latin culture, which includes in itself the loftiest Hellenic thought" (vii). Outside that "line" the

conception of knowledge that runs through this book, in spite of its Kantian phrases, is reminiscent chiefly of Spinoza.

It is already clear that this work is not a contribution to formalist logic or logistic, except as a confutation of the fundamental presuppositions and methods of a body of doctrine can be said to be a contribution to it. In the days of Leibnitz and those of Wolffianism; a century ago in the time of Hamilton; more recently, in connection with the name of Jevons; and now in the writings of Peano, Boole and Couturat, attempts are made to reform and correct formalist logic by inducting into it mathematical concepts and symbols: but these attempts all follow in the mistake of formalist logic in pretending that words are thoughts, that verbal propositions are concepts, and that logical relations run on all fours with those of grammar. This algebraical, algorithmic or symbolic logic is hailed in some quarters as a general science of thought, comprehending both the mathematics and logic. As a general science of thought, says Croce, "it is a laughable thing," "a charming amusement for those who have a taste for it." He pauses to sketch the simple outlines of the doctrine of the syllogism and of logistic; but they obviously lie to one side of the trail over which he conducts the reader: presently he turns away, as a tourist might lower his field-glass, with a sigh of well-meaning patience, "Well, if they be roses, they will bloom." They sprang from Aristotle's writings, but "he was a philosopher, and his successors were very often manual laborers" (586). The indispensable condition for surpassing the Aristotelian logic was a new philosophy of language, but the early reformers for the most part still revolved in the narrow circle of formalism. The revival of the philosophy of language begun by Vico and carried on by Hamann, by Herder and by Humboldt was unknown to Hegel, or had no influence on him. For this reason formalist logic has continued to exist (with difficulty) until to-day.

Croce represents philosophy as a systematic account of the predicate of the individual judgment whose subject is the subject-matter of history. He posits the compound equation, "Philosophy = thought = history = perception of reality" (494). "The formula that we oppose to Hegel's formula of the identity of *philosophy and history of philosophy*, is that of the identity of *philosophy and history*" (487). Without doubt, an idealist; he is also a realist and is not incapable of discovering elements of truth in materialism and the economic view of history. "All philosophical systems (including materialism and skepticism) have, whether they admit it or not, displayed or implied the same principle, which is the pure concept, and every philosophy is idealism" (483). "Every philosophy, to

whatever results it may attain, and whatever be its errors, is in its essential character and deepest tendency, *idealism*" (266). Absolute skepticism does not exist: it is in fact self-contradictory: and what does exist as the basis of science and philosophy is the concept. But Croce's idealism is not that of Plato or the modern transcendentalists: the reality he celebrates is rather that of perception, of the individual judgment: and his philosophy is not theistic in any medieval or transcendental sense. And yet, he is also an idealist in the sense of not being several other kinds of a philosopher, such as a materialist.

Where the term idealist is used as a synonym of philosophy, or as a synonym of thought, it is desirable to distinguish types of idealism wherever we wish to distinguish types of philosophy. But to place his system on a shelf with others of its kind is difficult: a product of Italian culture and an exposition of a great Italian tradition, it does not readily fall into the schemes of classification by which we usually pigeonhole philosophies. The *Logic* contains many pages that might be transcribed into pragmatist writings, but his insistence on the non-practical character of the pure concept would not be consistent with such a description of his system. A humanist viewing the world from the standpoint of man, his doctrine of the concept would no doubt be repudiated by Dr. Schiller. The world is for Croce just as various as any reflecting mind finds it to be: he is not a monist: and yet, one is sure the term pluralist does not adequately characterize him. Above all, he expounds a doctrine of the pure concept, but the formal and abstract definition of the pure concept by Kant does not in the least portray the vivid, pulsating thing that Croce has in mind.

In a way the name of Heraclitus is suggested by the argument unfolded in these pages, but it is Heraclitus *with* the Heraclitean Logos, and Heraclitus in a most modern dress. Croce aspires to write a "dynamic" rather than a "static" philosophy, a methodology rather than a metaphysic: he makes no attempt either to solve all problems or to furnish the basis upon which such solutions might be attained: he offers a vindication of the seriousness of logical thought, a vindication that would restore to philosophy its own riches, "the whole of history, both that known as history and that known as the history of nature." The practical convenience and indispensableness of the sciences are emphasized, but he views the sciences one and all as historic phenomena. No hypothesis can properly be called philosophical that is not thinkable as a pure concept or idea. Philosophy (not logic alone) is the doctrine of the categories: Logic is "a Category of the categories, a Philosophy of phi-

losophy." "The pure *a priori* synthesis, which is the reality of the individual judgment and of the definition, is also the reality of philosophy and of history" (324). Croce is an idealist of the Latin type, with his eyes focused, not on transcendental abstractions, but on life in its utter richness and inexhaustible variety. So far as the pure concept is concerned, he is also a realist; and he criticizes Kant for his intellectualism.

So far as the truths of science, industry, commerce and morality are concerned, the doctrine of Croce's *Logic* is in a way pragmatic and experimental; and the pure concept is the concept of these truths. The special task of empirical science is classification, and this is always dominated by practical motives. By resorting to convention, empirical science gives to representations of the singular the value of the concept.² In the mathematics, again by convention, the value of the single is given to abstract concepts. "Thus it (mathematics) divides spatiality into dimensions, individuality into numbers, movement into motion and rest, and so on. It also creates fictitious beings, which are neither representations nor concepts, but rather concepts treated as representation. It is a devastation, a mutilation, a scourge, penetrating into the theoretical world, in which it has no part, being altogether innocuous, because it affirms nothing of reality and acts as a simple practical artifice. The general purpose of this artifice is known; it is to aid memory. . . . They serve to supply the abstract concepts, which make possible the judgment of enumeration,"—and the latter is a false *a priori* synthesis.

Mathematics is sometimes represented as the *appendix magna* to the natural sciences; but the two together constitute an *appendix magna* or an *index locupletissimus* to history, "which is full knowledge of the real." History is the foundation of natural sciences, and the scientific treatment of history does not possess theoretic value. The whole content of truth of the natural sciences is history (351).

A syllabus of this theory of knowledge is as follows: "There are *two pure theoretic* forms, the *intuition* and the *concept*, the second of which is subdivided into *judgment of definition and individual judgment*, and there are two modes of *practical* elaboration of knowledge, or of formation of pseudo-concepts, the *empirical concept* and the *abstract concept*, from which are derived the two subforms of

² "That constancy and uniformity, which is postulated and falsely believed to be objective reality, is the same *practical necessity* which leads to the neglect of differences and to the looking upon the different as uniform, the changeable as constant. . . . *Natura non facit saltus* means: *mens non facit saltus in naturæ cognitione*, or, better still, *memoriæ usus saltus naturæ cohibet*" (338 ff.).

judgment of *classification* and of judgment of *enumeration*" (247). The elaboration of this syllabus, the first part of the book, is full of meaning. Intuition (or sensation) is a cognitive act, an unreflective synthesis of representation and expression. The usual designation of sensation is either "representation" or "intuition." The concept is neither a representation, nor a mixture nor a refinement of sensations; but it arises out of sensations as something implicit that must become explicit.

But concepts are of two kinds, either pure theoretic forms or "practical" elaborations; and this difference is indicated by the terms pure concept and pseudo-concepts (or fictional concepts). The last expression, I take it, is used in its etymological sense, meaning constructed: as Croce uses it, it does not mean either false or valueless. Pseudo-concepts are subdivided into empirical concepts (such as tree, oxygen), and abstract concepts (such as law, circle, free motion); but pure concepts are of one kind, such as good, true, useful, and beautiful. Croce refuses to make a list of pure concepts; but they are all ultra-representative and omni-representative, while pseudo-concepts are neither. That is to say, all pure concepts are present in each and every object of reflection, and pure concepts represent far more than any or all actual objects; while pseudo-concepts are present only in such objects as, for practical purposes, they are allowed to represent. Pseudo-concepts presuppose pure concepts: they are the work of the practical spirit: they are "practically," not theoretically, rational: and their purpose is mnemonic, convenient, or useful. They are not related to pure concepts by identity or contrariety: they are related to pure concepts merely by diversity.

Pure concepts, on the other hand, are expressible: they can be expounded: they are not mute acts of the spirit, such as practical acts are. They are both universal and concrete, concrete universality being their most important characteristic. The pure concept transcends the single representation, but it is immanent in all representations. Pseudo-concepts are either concrete, as in the case of the empirical variety, or universal, as in the case of the abstract variety: they never possess both characters at once. Croce is a realist, so far as pure concepts are concerned, and a nominalist so far as pseudo-concepts are concerned. The Platonic ideas were really pseudo-concepts. Intellect and reason differ as pseudo-concepts and pure concepts, truth being a function of reason, not of intellect. But reason is wrongly represented as a unifying faculty joining the theoretical and practical. The latter do not need joining: they are simply different functions of the spirit.

"The multiplicity of concepts can be referred only to the variety of the objects which are thought in the logical form of the concept," but Croce recognizes that you can not jettison distinction without rendering the concept unreal. "A unity is thinkable only in so far as it has distinctions within itself and is the unity of the distinctions;" and at this point Croce's doctrine gives rise to a serious question. If it is not pluralistic, neither is it monistic: the question is, Is there such a thing as mono-pluralism? Our philosopher's answer would doubtless be that numerical concepts are utterly inadequate to express the relation concerned. "The distinctions of the concept are not the negation of the concept, nor something outside the concept, but the concept itself understood in its truth. . . . Unity and distinction are correlative and inseparable" (77). "The Beautiful, the True, the Useful, the Good are not the first steps in a numerical series, nor do they permit themselves to be arranged at pleasure, so that we may place the beautiful after the true, or the good before the useful, or the useful before the true, and so on." They mutually imply one another and, hence, are not to be described as finite in number, because number is altogether incapable of expressing such a relation. Pancalism and panpracticism are alike impossible, from this point of view.

In the spectacle of life, the fact that comes after is certainly different from that which precedes, but is also the same. "This is called *history*; and therefore the relation of the concepts . . . can be called *ideal history*; and the logical theory of such ideal history has been regarded as the theory of the *degrees of the concept*, just as real history is conceived as a series of *degrees of civilization*." One degree of the concept is never found without the others in the smallest fragment of reality. The practical man does not exist beside the theoretical, the poet beside the philosopher: the work of art never stands separate from the labor of reflection. "The abstract distinction is unreal; and that of the concept is real; and the reality of the distinction . . . is precisely ideality, not abstraction." "In every fact there are all the determinations of the concept." Distinct concepts can be taken abstractly; but they then become pseudo-concepts, and the character belongs to the latter, not to the distinct concepts as such, which are always distinct and united. The symbol of the concept is not the bracket imposing unity upon terms that would otherwise be different, but the circle in which each point is both a beginning and an end; only spirit is the final end of spirit.

Opposite concepts ought not to be confused with distinct concepts, although they sometimes are. The practical and the non-practical are not distincts; they are not species of the practical; a

species can never be the negation of its genus. When opposite concepts as a class are distinguished from distinct concepts, they themselves become distincts; but if you treat any two opposite concepts as distincts, they vanish into each other. The Hegelian dialectic is simply this false and falsifying treatment of logically opposite concepts as distinct concepts. "He who meditates on the connections of affirmation-negation and unity-distinction has before him the problem of the nature of thought, and so of the nature of reality: and he ends by seeing that the two connections are not parallel nor disparate, but are in their turn unified in unity-distinction understood as effective reality, and not as simple abstract possibility, or desire, or mere ought to be" (99).

"The dialectic belongs to opposed categories (or, rather, it is the thinking of the one category of opposition), not at all to representative and abstract fictions, which are based either upon mere representation or nothing. As the result of that arbitrary form, we have seen vegetable opposed to mineral, society opposed to the family, or even Rome opposed to Greece, and Napoleon to Rome; or the superficies actually opposed to the line, time to space, and the number one to the number two" (102). This is an example of the error which Croce names philosophism. "Considered as real, the opposite can not be anything but the distinct; but the opposite is precisely the unreal in the real, and not a form or grade of reality" (103). The law of thought is not, A is A , which leads to a motionless and empty concept of being, nor, A is not- A , which destroys the criterion of distinction and is the false application of the dialectic principle; but, A is A , and, A is not- B , the principle of identity and contradiction. However, it is a very improper formula, a very equivocal one, says Croce, "because it allows it to be supposed that the law or principle is outside of, or above, thought, like a bridle and guide, whereas it is thought itself; and it has the further inconvenience of not placing in clear relief the unity of identity and distinction." All formulæ, all words, are exposed to misunderstandings. The application of opposition to the forms of the spirit would produce, not a circle, which is true infinity, but a *progressus ad infinitum*, which is false or bad infinity. The form of law given to the concept of the concept has led to this confusion; for it is an improper form, all saturated with empirical usage. The peculiar nature of the concept is more nearly expressed in the principle of sufficient reason; "but what else does seeking the sufficient reason of things mean but thinking them in their truth, conceiving them in their universality, and stating their concept." "The concept has the character of spirituality and not of mechanism, because reality is spiritual and not me-

chanical" (48). "The concept gives the essence of things, and in the concept *essence involves existence*" (116). That this proposition has been contested is due to a confusion between the essence that is existence, and therefore concept, and the existence that is not essence and therefore is representation. "If the concept of *virtue* is conceivable, virtue is; if the concept of *God* be conceivable, God is. To the most perfect concept the perfection of existence can not be wanting without being *itself* non-existent" (117).

Croce's interest in the reality behind the forms of language leads to the position that definition and syllogism are the same. "The connection of the concepts represents nothing new in relation to the thinking of the concept" (121). The middle term and the *ergo* are important only in so far as they express "the synthetic force of thought." The number three symbolizes the thinking of the singular concept in the universal through the particular, or the determining of the universal through the particular by making it a singular concept, whence it is certain that the relation of these three determinations is not numerical. It is a false abstraction to separate the reasons for truth from truth itself; except in the case of pseudo-concepts whose definitions are commands and not properly reasoned truths at all. Of pseudo-concepts infinite demonstrations are possible precisely because none are possible, because the definitions themselves are infinite. Any offer of demonstration in such cases is *pro forma*. Practical convenience, not logical cogency, determines such proofs, and the proof is usually a pretense. "The practical work of persuasion, proper to the commercial traveller, . . . and the merchant or manufacturer, . . . are not pertinent to Philosophy" (147).

The individual judgment has as its base a concept or definition, but it contains also a representative or individual element, which is transformed into logical fact, but does not lose individuality on that account. In the definitive judgment, the distinction between subject and predicate is purely grammatical or verbal: in the individual judgment, subject and predicate are different and distinct, the former being presentation and the latter conception. The analytic and synthetic judgments are nothing but the definitive and the individual judgments, respectively. "Intellectual intuition" is nothing but individual judgment, and a much more familiar name for individual judgment is perception, or perceptive judgment. "To perceive means to apprehend a given fact as having this or that nature: and so to think or judge it" (155). In perception or individual judgment, "the ultimate and most perfect form of cognitive facts," the circle of knowledge is completed. "The individual judgment,

or perception, is fully adequate to reality" (158). The error of treating it as the first form of knowledge leads to empiricism and rationalism, sensationalism and intellectualism, which are pseudo-concepts and give rise to pseudo-judgments. In the distinction between individual judgments and individual pseudo-judgments, between perceptions and pseudo-perceptions, Croce sees "perhaps the most profound" of all motives for the division of judgments into judgments of fact and judgments of value. Existentiality is a predicate in the individual judgment, but not in the definitive; but the predicate of existence does not suffice to constitute a categorical judgment.

The argument of the text goes on to distinguish between individual pseudo-judgments of the empirical and the abstract varieties, and empirical judgments are spoken of as judgments of classification. Sometimes we hastily form empirical judgments that take the place of pure individual judgments, whence arise certain controversies about the truth of perception, such as the straight stick bent in the pool, and the thing in itself. Abstract pseudo-concepts presuppose pure concepts, but not pure individual judgments: *i. e.*, it is not necessary to know individual things in order to form concepts of numerical series or geometrical figures: no representative element enters into them or is involved in their formation. The application of these abstract concepts is made possible by classification, which thus makes enumeration and measurement possible. Space and time in the mathematical sense are "thoughts of abstractions," not to be confounded with real thoughts or with genuine thoughts of reality. The Kantian conception of the ideality of time and space "is among the greatest discoveries of history and should be accepted by every philosophy worthy of the name" (197). However, the character of mathematical space and time is not ideality, but unreality, or abstract ideality. Empirical and abstract concepts can not be reduced to the pure concept. The book advocates the economic theory of the empirical and abstract sciences, thus excluding them from the sphere of logical thought, although their existence presupposes logical thought.

For the sake of the light it throws on Croce's method, permit me to add to this lengthy exposition of his *Logic* what we take to be the second most important feature of it, namely, his doctrine of error, again omitting for the present all comment. Error is usually defined negatively as a lack of consistency, a lack of conformity of thought to its object, the absence of convenience, and so forth. The negative or opposite of thought is thus error, while thought itself is truth. The mistake of conceiving error as the opposite of truth would be

evident if such definitions were maintained with thoroughgoing rigor; for it would then appear that as a form of spiritual activity, error does not exist.

On the other hand, we all know errors that are distinguishable from truth and thus exist for themselves. Croce holds that such error consists in the substitution of a practical act of the spirit for a theoretical act. One who commits error passes "from thought to deed; and his doing, in fact his thinking, is to open his mouth and emit sounds to which there corresponds no thought, or, what is the same thing, no thought which has value, precision, coherence and truth" (394). The practical act is rational enough (practically): it often obtains the material end, the applause, or whatever, at which it is aimed. It is often successful, far-sighted, and therefore rational; but it is not morally good. "Morality demands that man should think the true. Producers of error evade, or rather, do not elevate themselves to that duty." Error is thus an *improper combination* of ideas, as Vico said, and it is feasible to determine the number of types of improper combinations that the forms of cognitive activity admit.

Representation precedes the pure concept, while empirical and abstract pseudo-concepts follow it as their conditioning antecedent. Either representation or one of the pseudo-concepts may be taken for the pure concept, giving rise to either *estheticism*, *empiricism* or *mathematicism*. Again, the *a priori* synthesis of concept and representation in the individual judgment may be violently sundered and either element substituted for the whole, giving us as two further types of error *philosophism* and *historicism* (or *mythologism*), of which Hegel and Comte can, I suppose, be taken as illustrations. When attempts are made to preserve both the true form and the insufficient form or forms, the result is *dualism*, *skepticism* (or *agnosticism*), and finally *mysticism*. A new list of idols is added by the text, consisting of the tendencies of individuals and nations to carry over into philosophy their habitual thoughts and sentiments: these are named *professionalism* and *nationalism*.

This work further contains ingenious and suggestive sections on the phenomenology of error, and a historical sketch of the development of logical doctrine in general and of the doctrine of the logical *a priori* synthesis in particular. We have found them both, and the book as a whole, refreshing and scholarly. It is impossible for one who does not read Italian fluently to know to what extent the style of the book is due to the translator; but a poetic delicacy in the choice of words, in the structure of sentences and in the arrangement of materials does distinguish it, giving to a profound and

learned discussion the dignity and grace of great statuary and architecture. Croce is one of the most educated minds of the present time. He is so saturated with civilized life—indeed, his thought fairly drips with it—that no logic that is not real interests him. One lays the book down feeling as if he had been wandering in a diving-bell through the veins and arteries of humanity with the warm currents of its life pressing him on every side. One gathers from the text that the author is himself a sculptor, a traveller, a lover of poetry and painting, perhaps himself a poet, a sympathetic student of religions, and with it all, a man of the world. His humor is subtle and whole-hearted. He knows his own mind and speaks his thought right out, like one who both enjoys and trusts his pen. He has written a wonderful book, and it has been elegantly translated and printed.

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EXPERIMENTAL DETERMINISM AND HUMAN CONDUCT

IS a reasonable theory of human conduct possible on the basis of experimental determinism? Are conscience, responsibility, praise, blame, reward, punishment, compatible with complete determinism? What is the relation of experimental determinism to freedom?

The misgiving revealed in these questions I find to be the chief ground for hesitation in the complete acceptance of experimental determinism, even by men engaged in experiment; it is doubtless felt by all men who on other grounds would naturally assent to experimental determinism.¹ Does its acceptance involve a contradiction between one's theory and the necessary practise of daily life? If so, the theory is doubtless wrong.

What are the fundamental things that experimental determinism implies and what does it not imply? The writer has tried to answer these questions elsewhere;² here merely certain main points will be recapitulated.

Determinism holds that whenever there is a diversity between two events, this is preceded by other diversities so related to the later ones that if the preceding diversities are lacking, the later diversities do not occur. *Experimental* determinism holds that a given perceptual diversity between two events is always accompanied and pre-

¹ This difficulty has recently been strongly put by my colleague, S. O. Mast (*Science*, December 13, 1918).

² "Mechanism and Vitalism," *Philosophical Review*, November, 1918.

ceded by other diversities that are likewise perceptual, in the sense that they are manifested, not alone through the given perceptual result, but are subject to other perceptual tests for their occurrence; and are so related to the later diversities that if the earlier diversity is removed (experiment), the later one disappears.

Experimental determinism does not coincide with mechanism in the narrower sense, which is only one form of experimental determinism; a form that appears not admissible for all biological phenomena. Experimental determinism does not demand that the result of a given diversity should be computable or predictable before the result has occurred. It admits the possibility of the continual appearance of things that have never occurred before, and could not have been predicted from a knowledge of what had occurred before; all it demands is that diversities in the things so appearing shall be preceded by other perceptual diversities that experimentally determine them. Experimental determinism does not imply that conscious states have no (experimental) effect on action; does not imply that the mental is isolated from other perceptual activities; does not imply that "everything would have happened in just the same way without consciousness." It holds that diversities of human actions are determined by just what critical observation and experimentation find them to be; by diversities in character, education, reasoning, feelings, principles, appetites, as well as by diversities in the sense organs, muscles, nerves and in the present outward situation. It holds also that diversities in all these things are accompanied and preceded by other perceptual diversities that experimentally determine them.

Is a reasonable theory of human conduct possible on this basis?

What is the alternative? Is a reasonable theory of human conduct possible on the basis that action *is not determined in any way*? Can we reconcile conscience, responsibility, praise, blame, reward, punishment with the notion that what a man does is not the expression of what he is, not the result of his character, nor of his principles, nor of his reasoning, nor of any process occurring within him, nor of the situation in which he finds himself, but is independent of all those things and of everything else? Can a man be held responsible for an occurrence that is independent of all that he is? Can we reasonably praise him or blame him, reward him or punish him for actions that do not depend on his character, his will, his wishes, his intellect; the situation in which he finds himself?

To some minds the asking of these questions appears equivalent to answering them. Action that has no dependence on a man's character, principles, knowledge, reasoning or situation, would ap-

pear to be precisely the height of irresponsibility. If crime is not determined in any way, then whatever my character, I am as likely to commit a crime as the most hardened criminal. A man can not reasonably be commended, blamed or held responsible for occurrences that have no connection with what he is. If my actions are not determined by my thought, why take thought. This, not experimental determinism, is the doctrine that leads straight to fatalism.

On the opposing view, one of the determining factors in a man's conduct is precisely his conscience, his sense of responsibility; without it he would act otherwise. Praise and blame, reward and punishment, are justified because they control conduct (not because conduct is independent of them!). The death penalty controls the conduct of other members of the stock; or is a measure of safety for the other members, like the putting out of a fire. Those responsible for the Great War are so because it is the outgrowth of their principles or lack of principles, of their characters and theory of life; not because it produced itself independently of them. To take thought is justified because thought determines action.

All the necessary phenomena and practises in the daily conduct of human life find their place in the scheme of experimental determinism; each plays its part. But if actions are not determined in any way, conscience, reasoning, reward and punishment are without function.

What is the relation of this to freedom? The just basis for the concept of freedom is that a man is not controlled exclusively by forces external to himself, nor by chance, but that what he does, and what happens in the world outside of him, depend upon *him*; upon his character, his knowledge, his desires, his thought. Two men under the same outward conditions will act diversely, depending upon their diversity in these internal differentiations; the character and thought of each determine what shall occur. Is a man free if he acts in a way that has no connection with his experience, wishes, character, thought or situation? Not irresponsibility, chance or indeterminism, but holding within one's self the determinants of action is what constitutes freedom.

But it is when one takes the long view, when he looks at the continuity of determining and of occurrence from before his own coming into action until after it, that he seems not to be free. For it appears that all now occurring was determined by earlier conditions; hence, does it not seem that it is now not *I* that am acting, but those pre-existing conditions; does it not appear that *I* am quite impotent? How can I feel responsible or make efforts or take thought for what I shall do, since that was determined long ago?

We seem to meet the same difficulty met when we held that action is free in the sense of undetermined. There we said: Why take thought if thought does not determine action? Here we are inclined to say: Why take thought if the action was determined before the thought occurs?

At the worst the position of experimental determinism shares this difficulty with the theory of indeterminism; as well as with any metaphysical deterministic theory, such as that which holds that action is determined by entelechy or God or providence; so that we are left to choose our theory on other considerations than this. But I am disposed to question whether the difficulty exists for experimental determinism; it appears to result from a wrong notion of what such determinism implies. The notion that seems to make my own individuality count for nothing in action, is that the action was already worked out, "scheduled," computable, in some sense existent, before it occurred; before I existed. But experimental determinism does not imply this; it implies only that if what now occurs were different, the earlier conditions would have been different; though what now occurs need not be predictable from nor existent in those earlier conditions; it is determinism in a backward view, not necessarily in a forward one. Combinations in me may be such as have not occurred before, giving results not to be known till they appear, so that my action has all the interest of the unknown, the novel; my individuality is precisely what makes this particular result possible, so that I am indeed creative. I could not possibly hold this if what I am does not determine my action; nor could I hold it if I conceive that my action is but a coming into view of a preexistent entelechy. Experimental determinism presents the just basis for formulable science, for rational conduct of life, and for creative evolution.

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DR. DAWES HICKS ON REALITY AND ITS APPEARANCES

DR. HICKS'S general theory of the nature of physical objects is markedly realistic, if we take this term to mean predominantly non-subjectivist—appearances "evince themselves as ways in which the reality itself is apprehended—as partial, imperfect, incomplete ways in which the reality is known;"—in no sense are they "independent of, and separate from, the reality of which they are appearances."¹ Further, they "are not objects, but ways in which objects

¹ *Appearance and Real Existence* (Proc.: Aristotelian Soc.: 1913-14, pp. 33-36). In connection with this article should be read its predecessor (*Sense-Presentation and Thought*, 1906).

are apprehended. It is of *things* that we are immediately aware, while presentations as such are not immediately known;" and "not to produce [sense-qualities] but to become aware of them, is the function of conscious process" (p. 45).

1. Merely in order to elucidate the position on which such criticism as I have to offer is based I venture to express my complete agreement thus far with Dr. Hick's view: Appearance, briefly, is always partial reality,² and never otherwise unreal; "there is no ground for regarding the appearance as a third existent," additional to the real thing and the knowing mind (p. 46). At the same time, it appears to me that the complete development of Dr. Hicks's theory is such that we are in the end (a) debarred from ever knowing reality itself (as he holds that we do)³ and (b) as an inevitable consequence of this incapacity, we are also unable to set up any distinction whatever between reality and appearance—we can not, *i. e.*, know appearances to be such, because we can possess no real criterion wherewith to determine their character.

A possible ambiguity appears to lie however in the phrases "way in which reality is known," "ways in which objects are apprehended;" for the word "way" here in itself might refer either to the *process of our knowing* or to the *content known*; it might mean either the way in which we know, or on the other hand, the mode in which reality manifests itself—its significance, *i. e.*, may be either epistemological or ontological. But of these possible meanings, the first must be excluded—the reference is throughout ontological—to reality and its mode of manifestation. For it seems to be fundamental that if we know at all, we know reality, and never anything other;⁴ the only question being just how much of reality we know in each particular case—the answer depending on the degree in which the conditions necessary are fulfilled.

But here a crucial difficulty appears to arise, when Dr. Hicks continues (p. 39): The physical object "is distinguished from other objects, and its characteristics are discriminated, but always imperfectly, and in fragmentary fashion . . . the object is apprehended only incompletely;" and the difficulty arises from the word "always" here, for I would submit, if the object is thus discriminated, distinguished, apprehended, *always* imperfectly and incompletely, then it must be impossible for us ever to know physical reality as such in

² I think further that error consists in regarding any entity as Real, when it is only Appearance, thus understood: I believe this view agrees with Dr. Bosanquet's treatment in *Logic*, Vol. 1, p. 383.

³ "It is of things that we are immediately aware" (p. 36).

⁴ This principle of course settles nothing as to the nature of reality or of knowledge—both questions remain quite open.

any way; and that being so, also impossible for us to know appearance as being appearance, to know that the apprehended content is imperfect and incomplete. For Dr. Hicks's article concludes with a reference to "the conditions which space imposes even where apprehension has attained its highest degree of accuracy" (p. 48); this "highest degree," however, always falling short of the completeness of reality itself.

There can be no question of course as to the imperfection of what is apprehended in by far the vast majority of instances, in which the inevitable fragmentariness becomes supplemented by the mind's ideal content and reference; for it is only under these conditions that knowledge is at all possible for finite subjects; and in minds of a low order—*e. g.*, in animals—this incompleteness need never be transcended; only in that case the distinction between reality and appearance never arises, and appearances as such are not distinguished at all; naïve consciousness, again, never attains to any philosophic—*i. e.*, reasoned—distinction between these categories, and the term "real" has there no rationalized meaning.

But when consciousness becomes reflective it seems to me that it is impossible that any knowledge of "imperfection" should ever arise—or any judgment of "incomplete" be made—unless we can attain somehow to the immediate apprehension of perfect and complete reality; for both these terms are negatively derivative, and all negation demands some positive affirmative basis.⁵ It is impossible to know that anything is incomplete unless we also know the standard compared with which it is imperfect; as Dr. Hicks himself points out, "it is precisely in this contrast between the imperfect, the partial, and the perfect, the complete, that the significance of what is denoted appearance is to be discerned" (p. 39); but if, as he at the same time asserts, physical objects are discriminated *always* imperfectly, then the problem at once arises as to how the indispensable standard of the perfect and complete physical object⁶ is ever to be obtained. If this is not given objectively, if it is not immediately⁷ known, then it can have only a subjective, which may even mean in the end a solipsistic, origin; it must be supplied from and arise in the individual mind itself. Nor even thus could the essential difficulty of Dr. Hicks's position be overcome; for even were it admitted that the required criterial idea could be formed wholly by

⁵ "Negation *qua* negation has no significance" (Bosanquet, *Logic*, Vol. I, p. 282).

⁶ It must be noted that the problem is here restricted to the knowledge of real physical objects; for if the question becomes widened to that of Reality as a whole, then of course everything is known but incompletely, and the completeness of the Real becomes a postulate based on all our experience.

⁷ In Dr. Hicks's own sense of this term.

the mind itself, still this could only be on the foundation of its immediate objective experience; but again if this be *always* of the imperfect then the development of this idea appears to be wholly impossible.

In fact Dr. Hicks himself asserts that "in numerous cases the apprehending act results in a gradual lessening of the incompleteness of its apprehension" (p. 40); *i. e.*, I take it, of the incompleteness of the apprehended content. Now what prevents this lessening proceeding so far, under proper conditions, that the initial imperfection vanishes altogether, and the completely real itself becomes known? Indeed it would seem that unless, the proper conditions being fulfilled, we are immediately conscious of the real qualities—the real weight, temperature, size, *etc.*—of physical objects, exact science would be wholly impossible.

2. But even if we admit (a) that "the object is apprehended only incompletely" and (b) that the "imperfect ways in which the reality is known" constitute appearance, still another essential characteristic of appearance is adduced by Dr. Hicks; for (p. 46) "In and through the apprehending act there is awareness of certain features, and it is this awareness of a group of its features that constitutes that group, as the content of the act of apprehension, an appearance as contrasted with the real existing thing." And with this criterion, as with the other, it seems to me that the mind is once again absolutely debarred from ever knowing reality at all. Hitherto the apprehended content is constituted appearance because of its incompleteness or imperfection; and I have suggested the possibility of this defectiveness vanishing, whereupon the resultant content, being complete, would therefore be real. But in the passage last cited it is not the *incompleteness* of the group of features, but our *awareness* of it, that constitutes appearance; and since there must be awareness in every apprehending act, it follows at once that every apprehended content without exception can be no more than appearance—that we can never therefore transcend appearance and attain reality. Dr. Hicks's first characteristic of appearance, incompleteness of the content, might possibly be remedied; but his second, being an essential factor in the mind's very activity, can never be removed.

3. Nor, further, are Dr. Hicks's two criteria in any way connected, but rather seem arbitrarily independent of each other; whereas if reality is one, it would seem reasonable to suppose that there must be some essential connection between all the conditions which determine appearance. But if the incompleteness of any content constitutes its appearance, still we can not find in that characteristic anything whatever to suggest that our awareness of that content is also an essential factor; the one is, on Dr. Hick's own

theory of reality, an objective characteristic, the other is a subjective attribute of the apprehending mind.

Finally, Dr. Hicks's second criterion appears really incompatible with his previous assertions that (a) "appearances will not have a mode of existence . . . separate from reality" (p. 33), and (b) "the external object is in no way altered or affected through the fact of being apprehended" (p. 46)—this object of course being real. For if now our awareness constitutes any content appearance, and if further this awareness is "in and through the apprehending act," then it seems to be a perfectly logical conclusion that ultimately it is the apprehending act that determines appearance to be such; but if at the same time the external real object itself remains unaltered and unaffected, then the appearance (determined by apprehension) and the object (unaffected thereby) can be no degree identical; and there is thus set up a dualism between the real object and the appearance; a dualism which, again, if the appearance is but the incomplete way in which reality is known, is unfounded; for an incomplete entity is not, merely on that account, distinct from the complete, but rather the contrary.

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REVIEWS AND ABSTRACTS OF LITERATURE

Proposiciones relativas al Porvenir de la Filosofía. JOSÉ INGENIEROS.

Buenos Aires: Casa Vaccaro. 1918. Pp. 149.

This work is very interesting and instructive, and it is perhaps the most truly philosophical work that has ever been written in South America.

The author has already published a good many works, most of them being on sociological subjects, and has contributed important articles to the *Revista de Filosofía*, of Buenos Aires.

In this last work of his, he does not intend to give us a system of philosophy. His aim is more modest. He simply formulates a certain number of propositions which he believes are to be the basis of the metaphysics of the future.

According to the author, all past attempts at metaphysics have been a decided failure. This has been due to the fact that metaphysicians have been insincere. A whole chapter of the work is devoted to the so-called "hypocrisy of the philosophers." These philosophers, frightened by the memory of Socrates, Hypatia and Bruno, have always endeavored to harmonize their systems with vulgar beliefs, religious as well as political. And their philosophy

has thus been hypocritical and has brought discredit upon the very name of metaphysics. Among the philosophers thus branded by our author, we find all those we had been taught to regard as the leaders of human thought, Descartes and Spinoza, Locke and Hume, Kant and Hegel.

The metaphysicians of the nineteenth century, discouraged by the failure of their predecessors, have turned their eyes toward the history of philosophy. They have tried to bring back to life old systems of thought; and here again they have gone in a wrong direction. The study of previous systems may be important to make us understand the origin of actual beliefs; but it ought to be regarded by the philosopher as paleontology by the naturalist. It may and will explain dead forms of thought, but it can not contribute any vital element to the creation of new thought.

Human knowledge must have its starting point in experience. It is experience, and experience alone, that legitimates the different sciences and furthers their development. Human experience, however, will always be limited. However perfect our instruments may become, there will always exist a field which they will be unable to reach. It is with this field, which the author calls the unexperiential, that future metaphysics will be concerned. Its aim will be to formulate hypotheses with regard to the unexperiential. Where science is unable to reach, metaphysical hypotheses will start. And thus there will be no chasm, no discontinuity between empirical and metaphysical knowledge. Metaphysics will not be science, but it will be its prolongation. And metaphysical hypotheses will be legitimate in so far as they agree with the "least insecure" results afforded by science.

The first impression which one gets on reading Mr. Ingenieros's book is that the author is a true philosopher; or, at any rate, that he possesses in an eminent degree the quality which is most essential to philosophy, namely, absolute freedom of thought. This quality, even in the twentieth century, is far from being so common as one might believe; and we know too well that in our free America there are not many institutions which would admit a man as an instructor in philosophy, unless he belongs to a definite religious sect. Sometimes, however, Mr. Ingenieros seems to go too far in the opposite direction, and to believe too readily that past thinkers have been insincere. I will not easily be persuaded that St. Thomas Aquinas—to mention one of those that are most suspicious—has not been perfectly sincere in his system of philosophy. His beliefs on many questions were no doubt very different from ours; and he may have been mistaken; but this is not the question. Whenever he

derived an argument from theology, it was by no means as a concession to vulgar beliefs; but because he himself sincerely believed that theological arguments, being based upon the word of God, which is infallible, were safer guides towards the attainment of truth than the fallible light of human reason.

Mr. Ingenieros seems also to call into doubt the knowledge which modern philosophers possess of the systems they defend. He tells us that the Kantists praise their master more than they read him; and he is not sure that anybody has ever read the "Summa" of St. Thomas. If I am not mistaken, we sin rather in the opposite direction. We read too much and think too little. If we study, for instance, the problem of free will, we are anxious to read even the most obscure German dissertation about the question, but we are not sure that we have a definite opinion of our own. At any rate, I have read several times the three Critiques of Kant and the two "Summas" of Thomas Aquinas, and I have no doubt that many of my colleagues have done the same.

A more fundamental criticism can be made on Mr. Ingenieros's book. His very conception of the nature of philosophy is open to serious objection. According to his view, the aim of philosophy is to formulate hypotheses about the unexperiential. Philosophy thus becomes a mere prolongation of the sciences. If our instruments were imperfect and our scientific knowledge limited, the field of philosophy would be very extensive. The more our scientific knowledge increases, the narrower will the field of philosophy become. And if our scientific knowledge should become so complete as to embrace all nature in all its manifestations, philosophy would automatically disappear. There is no philosophy for a Divine Mind.

This conception of philosophy seems to us too narrow. No doubt philosophy is bound to formulate hypotheses about the unexperiential; but this is only a small part of its task. Its essential nature is different from the nature of science. For whereas science studies the different kinds of being, philosophy studies being in general. What is being? What is cause? What is substance? These are questions which are beyond the field of the scientist. The physicist will tell us that matter is made up of atoms—or of electrons—but what the nature of these ultimate parts of matter is, whether they are material or mental, and what is matter, and what is mind, these are the questions which the philosopher will treat. In Mr. Ingenieros's system, philosophy ceases to be "*ancilla theologicæ*," but I am afraid it becomes "*ancilla scientiarum*."

The task of the philosopher in formulating new hypotheses is studied with great skill by Mr. Ingenieros, and the chapters of his

work which deal with this task of future metaphysics are very important. They are original, of course, only to a limited extent. A good deal of emphasis has been recently laid down, especially by the pragmatists, upon the importance of hypothesis in philosophy. And we do not see exactly why Mr. Ingenieros, whose views on the point are not very different from those of William James, nevertheless mentions him among the pseudo-philosophers, and speaks of his anti-philosophism. It is even a question whether James's theory as regards hypotheses is not after all more perfect than the theory now given by Mr. Ingenieros. James has at least a definite criterion to determine the value of a hypothesis. The true hypothesis in his system is the one which works. In Mr. Ingenieros's book, on the other hand, we are looking in vain for a mark which will stamp our hypotheses as legitimate. He tells us that they must agree with the least insecure results afforded by science. But, as all these hypotheses are about the unexperiential, it is not very easy to see how any agreement can be found between them and what has been experienced.

In spite of all this, Mr. Ingenieros's book is a very important contribution to philosophical literature. It is a work which compels us to think upon the great questions which have engrossed the human mind since the age when man began to think; and, if I am not mistaken, this is the most essential character of a great philosophical work.

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Locke's Theory of Knowledge and Its Historical Relations. JAMES GIBSON. Cambridge University Press. 1917. Pp. 338.

If there be such a thing as a definitive commentary on an epistemologist, Mr. Gibson may fairly be credited with having provided such a work on Locke. The book is such an excellent one that the reviewer is tempted to confine his remarks to words of praise. Considerations of space prevent the detailed account that the rich content of the book merits. The reviewer will therefore confine himself to an account of the author's main thesis.

More than once it has happened that a philosopher has been victimized by a traditional interpretation that became established at an early date and has thereafter prevented commentators and historians from placing his work in its proper perspective. Mr. Gibson evidently regards Locke as one whose thought has been obscured in this way, and his book is a vigorous and eminently successful effort to dispel the obscurity that has grown up about Locke's epistemology.

The particular tradition against which the author protests is that which over-emphasizes what may be called the psychological empiricism of Locke. On the negative side, the author's thesis is that the popular tradition which finds the main purport of the *Essay* in a "theory of the genesis of ideas, which, denying to the mind both activity and the possession of any definite character of its own, derived all the contents of knowledge from particular data of immediate experience" (p. 1) is a mistaken construction of Locke's thought. There is no justification for "the supposition that he first approached philosophy from a purely empirical point of view, and that a different and opposite direction was subsequently given to his thought from an external source" (p. 237). On its positive side, Mr. Gibson's position is that Locke's primary interest was in a theory of the nature and possible extent of certainty, or knowledge, certainty, for Locke, being equivalent to knowledge. As summed up by the commentator, the main problem of the *Essay* is an "investigation of the nature and condition of a knowledge which is at once absolutely certain, strictly universal, 'instructive' or synthetic, and 'real;' the consequent determination of the possible extent of such knowledge, and the examination of its distinction from, and relation to other forms of cognition, which are deficient in some of the respects enumerated" (p. 7).

The question of the genesis of ideas is strictly subordinate to the main business of the *Essay*. But the question of the genesis of ideas may assume several forms. It may "represent an attempt to ascertain the primitive form of our cognitive consciousness;" or it "may signify an attempt to show the dependence of some or all of our ideas upon causes which are not themselves ideas" (p. 46). Each of these inquiries has a place in Locke's thought, but Mr. Gibson thinks that in reality the "whole historical aspect of experience possessed little significance and no intrinsic interest" to the men of Locke's time and to Locke. "The truth is that the whole inquiry into the origin of our ideas, and the manner of formation of those which are complex, is in Locke's mind inextricably connected with the logical determination of their content" (*ibid.*).

The place occupied by psychological questions in the investigations of the *Essay* is, accordingly, subordinate to another interest. Locke's method is "far from being that of introspection" (p. 22). But what is the source of the traditional confusion of the histories and commentaries which over-emphasizes the psychological genetic account of ideas? The answer is, in Locke's own confusion. Here a further question arises: How did this confusion in Locke's investigation come about?

The answer lies in the combined influence of the traditional metaphysics which Locke never rejected, with its categories of substance and quality (p. 28), and in his use of the "composition theory." Gibson remarks that for thinkers of the period of the *Essay* the whole temporal process was conceived as containing nothing but different combinations of the same simples. The complex was taken to be a whole composed of its constituent parts, the simple parts being unchangeable, and the whole being resolvable into the parts without remainder (p. 47). Now bearing in mind that Locke's course of investigation was, in its first intention, a process of logical analysis and the discovery of the logical simples, and also considering that the temporal process was looked upon as a matter of combination and dissociation, we can see how easily the logical simples came to be identified with the unchangeable elements which were grouped and re-grouped in every case of change. The psychological genetic account of ideas accordingly got thrown into terms of the combination of the simple parts into the complex whole, and the logical analytic process is the reverse of the genetic process. Mr. Gibson's point seems to be that it is not primarily true that the logical analysis *led to* the psychological genetic analysis, as that the composition theory made the two methods seem to be one and the same. Perhaps the reviewer may venture to state the point in his own language by saying that the case with Locke was not so much one of falling into psychologizing, as one of never making a distinction between the two methods of approach.

The "New Way of Ideas" is therefore both a logical and a psychological way. The resultant difficulties center in the meaning of the term "idea." Locke's principal interest is in the "objective reality" of the idea, not in its subjective "psychical" existence. But it possesses both meanings; it is at once "the apprehension of a content and the content experienced; it is both a psychical existent and a logical meaning" (p. 19). Ideas are objects of thought, and this implies for Locke relation to and dependence on a mind or subject. While he "assumes throughout a realm of real being, independent of the cognitive process, but to which our knowledge ultimately refers, the constituents of this real are not 'objects' in his sense of the term" (p. 20). The psychical character possessed by the idea seems to be the result of Locke's acceptance of the doctrine of substances and qualities. The soul remains a substance to Locke; in fact, "substance" as category he held to be perfectly valid. The trouble was not with the category, but in the limitations of our knowledge. Thus concerning the soul we are ignorant "of the manner of its existence, and the way in which it performs the

functions revealed in experience" (p. 28). Locke's "assumption of the current metaphysics" continually obstructs the course of his thinking. "For, just as the composition theory, in the form in which it was put forward by him, sought to resolve the contents of our ideas into a number of separate and self-identical units of experience, so the metaphysics, which he inherited, held that reality consists of a number of separate and self-identical substances, or units of being" (p. 92).

The reviewer has chosen to state the author's general thesis at some length rather than to summarize the details of his treatment of various topics, for the author's handling of the separate problems depends on this thesis, and forms, indeed, its vindication. It may be pointed out, however, that in Chapter 7, which is entitled "The Kinds and Limits of Knowledge," we find the disentangling of the various unresolved difficulties in Locke's theory of knowledge, and their connection with the different elements of Locke's thought stated above.

Part II. of the book is devoted to the historical relations of Locke's doctrine. Considering its compass, it forms the best discussion of the relations that we possess. Successive chapters deal with the relations between Locke and Scholasticism (chap. 8), Descartes (chap. 9), Contemporary English Philosophy (chap. 10), Leibniz (chaps. 11 and 12), and Kant (chap. 13).

As a final word, it may be said that Mr. Gibson has rendered an important service by writing this book, and his work should serve as a corrective to the unjust treatment that Locke receives in so many of our histories of philosophy.

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JOURNALS AND NEW BOOKS

AMERICAN JOURNAL OF PSYCHOLOGY. October, 1918.

The Influence of Mental Work on the Visual Memory Image (pp. 355-370): ANNA BERLINGER. — The usual daily work and a controlled amount of work in each instance shortened the duration and reduced the number of the images. *The Theory of Recapitulation and the Religious and Moral Discipline of Children* (pp. 371-382): WESLEY RAYMOND WELLS. — Children must be taught morality with an authoritative religion. Taboo and fears in religion are excellent controlling forces. *The Biological Value of Religious Belief* (pp. 383-392): W. R. WELLS. — Religious beliefs have been of value through their hygienic and moral influence. *Intellectualism versus Intuitionism in French Philosophy Since the War* (pp. 393-399): ALBERT

SCHINZ. — When clear thinking and keenness of intellect return to France she will again be restored in the philosophic world. *The Discrimination of Cutaneous Patterns below the Two Point Limen* (pp. 400-419): CORA L. FRIEDLINE. — Sub-liminal discrimination of two points, due to the recognition of a pattern, is modified by fatigue, practise, etc., because of a change in the object of the judgment. *The Localization of Feeling* (pp. 420-430): P. T. YOUNG. — Pleasantness and unpleasantness can not be located. The stimulus causing them can, and is often called a part of the feeling. *Aristotle's Other Logic* (pp. 431-434): HENRY BRADFORD SMITH. — For every member of the A. E. I. O. set of propositions there is another member of the set which stands for the contradictory. *Sixteen Origins of the Mind* (pp. 435-441): J. F. DASHIELL. — The various sources of the concepts of the "mental" are found in psychology, physiology, philosophy, theology, and anthropology. *Minor Studies from the Psychological Laboratory of Cornell University. A Preliminary Study of the Psychology of Heat* (pp. 442-448): F. CUTOLO, JR. — Heat as distinguished from warmth probably carries with it the element of pain. *The Mental Duet* (pp. 449-450): ARTHUR S. PHELPS. — Man does mental work by reasoning, while woman bases her mental work on feeling, both reach toward Truth. *Book Reviews* (pp. 451-457): Marthe Borelly, *Le Génie féminin français*. Paul Bourget, *Le Sens de la mort*. Alfred Loisy, *Mors et Vita*. René Benjamin, *Gaspard*. Charles Maurras, *L'Avenir de l'Intelligence*. Emile Paul, *Les Diverses Familles Spirituelles de la France*. Paul Lintier, *Ma Pièce and Le Tube 1233*. *Book Notes*. William Ernest Hocking, *Human Nature and its Remaking*. Edward Gleason Spaulding, *The New Rationalism; the development of a constructive realism upon the basis of modern logic and science, and through the criticism of opposed philosophical systems*. Maximilian P. E. Groszmann, *The Exceptional Child*. William H. Allen, *Universal Training for Citizenship and Public Service*. Walter Scott Athearn, *Religious Education and American Democracy*. John J. Toohey, *An Elementary Handbook of Logic*. Edited by the Department of Philosophy of Columbia University, *Studies in the History of Ideas*. Proceedings of the American Society for Psychical Research: June, 1918. Leo Tolstoi, *What men live by, and other tales*. *American Journal of Physical Anthropology*.

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NOTES AND NEWS

THE following sketch of the career of Gaston Milhaud who died recently is from the *Revue de Métaphysique et de Morale* for January-February, 1919:

"Student at the *École normale* in the division of science and fellow in mathematics at his graduation from the *École* in 1881, he seemed destined for an exclusively scientific career. But at Havre, where he had been appointed professor of elementary mathematics, he met his school friend, Pierre Janet, who was teaching philosophy there at the time. This meeting probably exercised a decisive influence on his point of view. The long talks they had together developed his natural taste for reflection and criticism: and when he was sent several years later as professor of advanced mathematics to the *lycée* at Montpellier, he was already more interested in the history and theory of science than in science itself. From 1892 on he gave at this university 'a *cours libre* on 'The Beginnings of Greek Science.' These lectures appeared the following year in a volume which marked the beginning of his philosophical reputation. Soon after, upon the presentation of two theses on philosophy, he was granted the degree of *docteur ès lettres* from the Sorbonne. The more important of these theses was entitled *Essai sur les conditions et les limites de la certitude logique* (1894): it will remain one of the monuments of the great contemporary reaction against the predominance of formalisme and the *a priori* and against the unreflecting belief in the absolute value of 'Science' which prevailed in the preceding period. *Le Rationnel* (1898) is a commentary on this critique, and complementary to it. Shortly after, he took temporarily the place of M. Lionel Dauriac in the chair of philosophy at the University of Montpellier, and succeeded him in this position in 1900. It was this same year that he published *Les philosophes géomètres de la Grèce*, soon followed by *Le Positivisme et le progrès de l'esprit* (1902) and by the *Études sur la pensée scientifique chez les Grecs et les modernes* (1906). Because of his growing reputation he was called in 1909 to the Sorbonne, where a chair was created for him in 'The History of Philosophy in its Relation to the Sciences.' We have no need of recalling how he justified this call, and what services he rendered to the students by his profound knowledge of our great mathematical philosophers, Descartes, Leibniz, Comte, Renouvier, Cournot. His lectures on general philosophy, at which he provoked and directed the discussion among the students, had for them a charm of which they have often spoken. In 1911 he published his *Nouvelles Études sur l'histoire de la pensée scientifique*. At the same time there ap-

peared in the *Revue des cours et conférences* a series of studies on Renouvier; to say nothing of numerous articles printed in various other publications. At the time of his death he had just finished a book on *Descartes savant*, which is a most useful addition to our knowledge of that great philosopher: the work can be judged by the chapters that have already appeared, principally in this very *Revue*. Some days before his death he wrote to tell us of the approaching completion of a new chapter, which, in our opinion, should serve as an introduction to the book. He was awaiting his return to Paris to verify the notes."

DR. HENRY RUTGERS MARSHALL has just completed a course of eight lectures at the Union Theological Seminary, New York City, on the subject of "Mind and Conduct." The topics discussed were as follows:

A. *The Correlation of Consciousness and Behavior*

- (1) Monday, March 3. *The Correspondence and its Limits.*
- (2) Wednesday, March 5. *Instinctive and Adaptive Behavior and their Mental Correspondents.*
- (3) Wednesday, March 12. *The Self.*

B. *Some Implications of the Correlation*

- (4) Friday, March 14. *Creativeness and Ideals.*
- (5) Monday, March 17. *Freedom and Responsibility.*

C. *Guides to Conduct*

- (6) Wednesday, March 19. *Pleasure and Pain.*
 - (7) Monday, March 24. *Happiness.*
 - (8) Wednesday, March 26. *Intuition and Reason.*
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Erratum: On page 101, lines 3 and 4, for "can not be defined by better," read "can not define better."

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE YOGA SYSTEM OF MENTAL CONCENTRATION AND RELIGIOUS MYSTICISM

THERE appeared for the first time in 1914 a complete English translation of the most important of the Yoga systems, the Yoga of Patanjali.¹ To the student of the psychology of religion, this was an irresistible invitation to become acquainted with Hindoo religious mysticism in its most definite form.

To characterize Yoga as a system of philosophy or of ethics would be misleading. Its more direct analogy is with our manuals of religious worship; for its central purpose, like that of our books of devotion, is to teach the way to salvation. But, as one would expect, its practical directions are imbedded in a fanciful psychology and unnecessary metaphysics.

The Yoga of Patanjali consists of 195 rules which, if stated without comments, could be printed in the space of a dozen pages. They are, however, far from clear to the European reader, and presumably little more so to the Hindoo, for they are accompanied by the Yoga-Bhasya, a commentary much longer than the text, and by still more extensive explanations due to Vacaspatimicra. According to the translator, the rules were written between A.D. 650 and A.D. 850. The treatise is divided into four books: Concentration, Means of Attainment, Supernormal Powers, and Isolation. The first two treat in the main of the means or methods of attaining the perfect state, and the last two describe chiefly that which is to be attained; but one should not look for a strict logical arrangement of parts.

The Initial Propositions.—Life is evil and death is merely the beginning of another painful existence—such is the double proposition upon which Yoga and, of course, Buddhistic philosophy in general, is grounded. The goal is escape from the round of rebirths. So far nothing could be clearer. When we pass to the means of deliverance

¹ *The Yoga-System of Patanjali, or the Ancient Hindoo Doctrine of Concentration of Mind.* Tr. by James Haughton Woods. Harvard University Press. 1914. Cambridge, Mass. Pp. xii + 384.

The word Yoga comes from the same root as the Latin *jungo*, to unite. The aim of the Yogin is to become one with the All.

from this unacceptable situation, the text becomes more difficult. We must first note the distinction Yoga makes between the "Self" and the "mind-substance" or "thinking-substance," and the respective functions it ascribes to them, for the whole scheme of deliverance is dependent upon that distinction.

The Self is "the power of seeing," and the mind-substance is "the power by means of which one sees" (ii., 6, 20). It would probably agree better with our ways of speaking to describe the first as a "power" and the second as an "instrument." Without this mind-substance the Self would be "isolated;" *i. e.*, it would not be conscious of the world, for it is through the activity of the thinking-substance that the Self becomes aware of objects, acquires knowledge (i., 2; ii., 6, 20; ii., 17), and thus enters into relation with the world. This entering into relation with the world by means of the thinking-substance generates desires and passions and with them the sense of personality. Rebirth is a consequence of desire and passion. Deliverance can therefore be attained by disconnecting the Self from the mind-substance. "Isolate" the Self, make it "not conscious of any object" (i., 20), passionless and purposeless, and personality will have dwindled away—thus speaks Yoga.

In certain parts of the book the mere realization of the difference that exists between the Self and the mind-substance and of the rôle played by the latter, is said to be enough to bring about the deliverance of the Self. We read for instance that the fateful error of man is the confusion "of the power of perceiving" with "the power by which one perceives" (ii., 6). It is this confusion which gives rise to the sense of personality and with it to all human misery. Deliverance is therefore said to be obtained when one has become conscious of the distinction between Self and thinking-substance; then the Self has "passed out of relation with the aspects or attributes of things, and, enlightened by himself and nothing more, is stainless and isolated" (ii., 27). But this theory is contradicted by the very existence of Yoga, since it is not satisfied to point out the distinction between the Self and the thinking-substance but places the main emphasis upon other means of achieving the liberation of the Self.

The task before the Yogin is, then, the suppression of the activity of the mind; in the language of the Sutras, the "fluctuations of the mind-stuff are to be restricted." The classification of these fluctuations or activities offers one of the many instances of the *naïveté* of Hindoo psychology. Five kinds of fluctuations are enumerated; source-of-valid ideas, *i. e.*, perceptions and verbal communications; misconceptions; predicate relations; sleep; memory (i., 2, 5-11). We need not try to puzzle out this analysis of the mind's activities.

That which matters most is fortunately clear enough: the mind-stuff is to become quiescent, it is to be permanently in the "restricted state."

"Concentration" is the name of the condition of him who has entered upon the way to deliverance. In its lower degree it assumes the form either of deliberation or of reflection upon any object of thought (i., 17-18). At first the mind remains conscious of objects; but in the higher stages of concentration it loses that consciousness; objects merge, and there remains only "subliminal impressions" (i., 17, 18). Finally the Yogin "ceases to be conscious of any object."

Hindrances to concentration, and how to overcome them.—There are many hindrances to concentration. Yoga divides them in two groups. The reason for the separation in two groups is as obscure as the reason for the composition of each group. In the first, we find "sickness, languor, doubt, heedlessness, worldliness, erroneous perception, failure to attain any stage of concentration, and instability in the state when attained" (i., 30). In the second group are put together undifferentiated consciousness (mistaking the impermanent, impure, *etc.*, for the pure, permanent, *etc.*), the feeling of personality, passion, aversion, and the will-to-live (ii., 3).

In order to overcome these hindrances and attain his goal, the Yogin needs every available help. The sutras indicate eight methods and devices (ii., 29-55; iii., 1-3). Five are called indirect (abstentions, observances, postures, regulations-of-the-breath, and withdrawal-of-the-senses), and three are called direct aids (fixed attention, contemplation, and concentration).

Some of these aids indicate a concern for ethical perfection—the "abstentions," for instance, which are defined as "abstinence from injury and from falsehood and from theft and from incontinence and from acceptance of gifts." "Abstinence from injury in which 'all the other abstentions and observances are rooted.'" is to be understood as "abstinence from malice towards all living creatures in every way and at all times" (ii., 30). This is good-will expressed negatively. The "observances" also are in part of a genuine ethical character. Cleanliness is defined both as external, and then produced "by earth or water or the like; and as inner cleanliness of the mind-stuff" (i., 32). The Yogin is enjoined furthermore "to cultivate friendliness towards all living beings that have reached the experience of happiness; compassion towards those in pain; joy towards those whose character is meritorious." The mind-stuff of him who conforms to these prescriptions "becomes calm; and when calm it becomes single-in-intent and reaches the stable

state" (i., 33). An ethical purpose and practise is not logically demanded by the goal of Yoga; for honesty, friendliness, *etc.*, are irrelevant to one who seeks utter detachment and isolation. The coupling of a concern for moral values with a desire for the suppression of personality is one of the incongruities that betray the confusion of thought from which this system suffers.

The most curious of the physical aids to concentration are the "postures." A sutra on postures enumerates them thus, "the lotus-posture and the hero-posture and the decent-posture and the mystic-diagram and the staff-posture and the posture with the rest and the bedstead, the seated curlew and the seated elephant and the seated camel, the even arrangement, the stable-and-easy and others of the same kind" (ii., 46).² These postures are to be accompanied "by relaxation of effort or by a mental state-of-balance with reference to Ananta" (ii., 47). In this connection we may remark that relaxation of effort as well as "concentration" of attention plays a capital rôle in the production of various automatisms and of trance states. Relaxation is demanded of the subject for psychoanalysis, and it is when the sinner despairs of reforming himself by his own endeavors and surrenders to the will of God that salvation comes. In the production of hypnosis one or the other of these expressions, or both, are used to describe the attitude to be assumed by the subject.

The physical helps to concentration include mortifications, fasts and other ascetic practises; but the one most insisted upon after the postures is perhaps the control of the breath. It is secured, we are

² Pictures of these postures are given in Richard Schmidt's *Fakire und Fakirthum*.

I draw the following passage from the Bhagavadgita.

"A devotee should constantly devote his Self to abstraction, remaining in a secret place . . . fixing his seat firmly in a clean place, not too high nor too low, and covered over with a sheet of cloth, a deerskin and blades of Kusa grass—and there seated on that seat, fixing his mind exclusively on one point, with the workings of the mind and senses restrained, he should practise devotion for purity of Self. Holding his body, head and neck even and unmoved, remaining steady, looking at the tip of his own nose, and not looking about in all directions, with a tranquil self, devoid of fear, and adhering to the rules of Brahmakärins, he should restrain his mind and concentrate it on me [the Deity], as his final goal. Thus constantly devoting his Self to abstraction, a devotee whose mind is restrained, attains that tranquillity which culminates in final emancipation and assimilation with me." Elsewhere the devotee is directed to exclude from his mind "external objects, concentrate the visual power between the brows, and making the upward and downward life-breaths even, confining their movements "within the nose." In another place, he is directed to repeat the single syllable "om," a mystical formula for Brahma. Max Müller, *Sacred Books of the East*, Vol. VIII., Chapters V. and VI., pp. 68–69, 66–67.

told, together with the attainment of "stable" postures (ii., 49). There are no less than four kinds of breath control: "it is external in case there is no flow of breath after expiration; it is internal in case there is no flow of breath after inspiration; it is the third or suppressed in case there is no flow of either kind" (ii., 50). The puerile subtleties into which sutras and commentaries enter in this connection can not interest us. We need note merely that the fourth and perfect control of the breath involves the total suppression of the passage of air to and from the lungs. Since death would speedily supervene should this be realized, we must suppose that the Yogin, in consequence of the bodily and mental attitude he assumes, is deceived into the belief that breathing is totally suspended. That he suffers many illusions and hallucinations there can not be any doubt. But why this unnatural behavior? Because in restraint of breath, "the central organ" becomes fit for fixed attention, and complete mastery of the organs is attained (ii., 53, 55); *i. e.*, the sense organs are "restricted," their activity ceases, and that, as we know, is a step towards complete disinterestedness and passionlessness.

In Christian mysticism, absorption in the adorable personality of God or Christ or of one of the saints, is a recognized method of ascending the "ladder" that leads to ecstasy. A corresponding practise is found in the Yoga system; it is the "devotion of the Içvara" (i., 23). That being is not easy to describe. He is a "special kind of Self," never in the bondage of time, space, and matter, "at all times whatsoever liberated" (i., 24); in him "the germ of the omniscient is at its utmost excellence" (i., 25); he is the Teacher of the Primal Sages (i., 26). This exalted Being is represented by the mystic syllable which, when reflected upon and many times repeated brings the mind-stuff to rest in the One Exalted (i., 28).³

The use of drugs is not recommended in the Yoga of Patanjali; it is, however, mentioned and acknowledged as available and legitimate. Book IV. opens with this sutra, "Perfections proceed from birth or from drugs or from spells or from self-castigation or from concentration" (IV., 1). The commentary says that "agelessness and deathlessness and the other perfections" may be had by the use of an elixir-of-life. This implied recognition of similarity between the condition secured by the Yoga-practises and that produced by drugs is too significant to be overlooked by the student of the mystical ecstasy.

³ It is to be noted that in the explanation of this sutra, "reflection" is defined as "an *absorption* in the mind again and again" (i., 28). We are therefore to understand by "reflection" in this connection, not that which is ordinarily meant by it, but rather the opposite.

Results.—The *ultimate* end is, we already know, the separation of the Self from every object of sense or thought, the suppression of all desire and passion, and the consequent elimination of personality. But just as Christian worship offers secondary attractions of an esthetic, social, or even grossly utilitarian nature, so among the Hindoos, the desire to pursue the goal is greatly assisted by many real or imaginary advantages that accrue to the faithful Yogin. Each practise has its reward. Postures render the Yogin unassailable "by the extremes, by cold and heat and other extremes" (ii., 48). Self-castigation brings perfection of the body, such as hearing and seeing at a distance" (ii., 43). As a result of concentration upon muscular powers, there arises strength like that of the elephant; as the result of concentration upon the sun, there arises an intuitive knowledge of the cosmic spaces. Concentration upon the "wheel of the navel" brings "intuitive knowledge of the arrangement of the body" (iii., 29); upon the "well of the throat," "cessation of hunger and thirst;" *etc., etc.* It would be futile to attempt a full enumeration of the marvelous powers promised to the faithful Yogin, and still more to try to fathom the reason for the connection affirmed between each practise and its alleged result. If it is, at times, natural or logical, it is more frequently a connection obviously fanciful in the extreme.

One of the most alluring of the imaginary claims of Yoga is the possession of "all truth." When the Yogin has "ceased to be conscious of any object," he is said nevertheless to have gained the insight by which things are perceived "as they really are" (i., 20). He realizes, of course, that this omniscience is not acquired by the ordinary way of protracted and systematic intellectual effort. It comes to him in the measure in which he discards critical reason and surrenders to the "unconscious:" it is when the Yogin has gained "the vision by the flash of insight which *does not pass successively through the serial order of the usual process of experience*" (i., 47) that he possesses the "truth bearing" insight (i., 48). What does that insight reveal? It reveals "all that he (the Yogin) desires to know in other places and in other bodies and in other times. Thereafter his insight sees into things as they are" (ii., 45; comp., iii., 54).

This is obvious nonsense. The Yogin can not substantiate his claim to a knowledge of the thoughts of other persons, of the time of his death or of his present and future incarnations; concentration upon the moon does not give him an intuitive knowledge of "the arrangement of the stars" (iii., 27). A careful reading of Yoga discloses, however, that magical omniscience and omnipotence are not taken too seriously. After all, the Yogin keeps his eyes first of

all on deliverance from pain. Consider, for instance, this elucidation of the nature of "insight:" "And in this sense it has been said, 'as the man who has climbed the crag sees those upon the plain below, so the man of insight who has risen to the undisturbed calm of insight, himself escaped from pain, beholds all creatures in their pain.'" (i., 47). Here the function of "insight" is deliverance from pain. That, in truth, is the gross purpose of Yoga and that the faithful observers of the sutras obtain.

The omniscience and omnipotence claimed for the Yogin should be placed in parallel with the similar claim made by the users of drugs in religious ceremonies. In both instances the claim is an expression of yearning for unlimited physical and intellectual powers and of an illusory realization of those yearnings, due in one case chiefly to persistent concentration of attention, fixedness of bodily postures, *etc.*, and in the other, mainly to the action of a drug. Much that is enlightening is lost if the experiences and claims of the drug-ecstatic and of the Yogin are not remembered by the student of the Neo-platonists, of Eckhart, and of the like of them.

If omniscience and omnipotence are, with the Yogin as with the drug-intoxicated, illusory, real advantages are nevertheless secured by both. During the early stages of the emptying process the Yogin enjoys a *sense* of unlimited power and the delights of imagination freed from the checks of critical reason. Physical pain is allayed and, when the trance is sufficiently profound, altogether removed, moral pain also vanishes, the dread of sickness and age, the wearisome struggle to keep up with the demands of society and of one's better self, the wickedness of duplicity, pride, and hatred, disappear when the mind has become concentrated upon an "objectless content." Sensuous raptures so conspicuous in drug ecstasy seem also in some measure at least to add their delights to the Yogin's experience. These gains, chiefly perhaps the last one, are responsible for utterances like this, "what constitutes the pleasure of love in this world and what the supreme pleasure of heaven are both not to be compared with the sixteenth part of the pleasure of dwindled craving" (ii., 42). In a similar way do Christian mystics rhapsodize about the unutterable delight of "communion with God."

But does not this contradict the Yogin's conception of the final state; is unconsciousness, annihilation consonant with enjoyment? Obviously not; it is merely consonant with painlessness. This contradiction in the idea of Nirvana runs through all or most Hindoo religious literature. Its existence is not difficult to account for: the delights the Yogin finds on his way to unconsciousness, he mistakenly ascribes to that final state. Similarly the sufferer who contemplates

ultimate deliverance from pain, can hardly refrain from speaking of that condition as one of bliss, although, in fact, it is no more than absence of suffering. The same confusion appears among Christian mystics.

The Illogical Craving for Moral Perfection Manifested in Yoga.—

Attention has already been drawn to the very specific directions by which the Yoga of Patanjali encourages the practise of social virtues. Yet the removal of all ethical considerations would leave its essential structure unaffected; for, after all, ethical considerations have no logical place in a system that aims at the breaking of all bonds connecting the individual to the physical and social world. If Yoga sets down principles and prescribes rules of intercourse with one's fellows that are not much inferior to the best in Christianity, it is probably because those who elaborated this scheme of deliverance were after all keenly conscious not only of the presence of the evils of existence and of a general desire to escape these evils, but also of an ideal of social perfection, the worth of which they tacitly acknowledged.

In the western world, dissatisfaction with this life because of physical and moral evils, instead of prompting to self-annihilation and the destruction of society, spurred the cravings for self-realization and social perfection, and their gratification was conceived to take place in an ideal social order beyond the grave. Is the Hindoo so different from the rest of mankind as to seek that which he abhors? There is no sufficient reason to think so. After all, he, no more than the westerner, gives up the struggle for self-realization. To neither is the mere cessation of effort and extinction a really satisfactory solution of the problem of destiny. The Hindoo also seeks a victorious end. There must be no ignoble surrender; evil has to be overcome before he will consent to enter eternal rest. Is not rebirth a scheme to secure by gradual purification ultimate triumph over evil and the realization of individual perfection? How senseless would be the prolonged torture of rebirth were it not regarded as an instrument of self-realization! Whatever its origin may have been, I am tempted to think that that belief would have been given up long before Yoga was written, had it not served this high purpose in the mind of the believers.

In this, then, Christianity and Buddhism substantially agree: both seek a self-realization that involves moral perfection. But beyond this a bifurcation takes place. The Hindoo considers that victory over his imperfections entitles him to an honorable dismissal from conscious existence. The western mind, on the contrary, regards the attainment of perfection as a warrant for a blessed and endless continuation as a self-conscious being.

It is easy to speculate as to the source of this divergence. A difference in the strength of certain primary instincts, as that of pugnacity and rivalry, may account for it. But here again the Hindoo does not really stand so far apart from the western world as it seems. Nirvana is described both as a state of unconsciousness and of incomparable bliss. The practical significance of this contradiction is clear: the Yogin need not, and the average Yogin probably does not, seek utter annihilation. That which he anticipates is really cessation of suffering and eternal, lethal enjoyment. Is there a very important difference between this expectation and that of the Christian who seeks the joys of heaven? Probably not. Let it be remembered in this connection that the idea of the future life, as it is found among educated Christians, is so vague that little can be added to the descriptive expression "eternal blessedness."

Some Results of the Yoga Method.—The final earthly condition of the faithful, uncompromising Yogin, as he appears to the unsophisticated observer, does not seem worthy of man's holiest endeavors. The emaciated, bewildered ascetic, reduced to the dimmest spark of life, equally incapable for lack of energy of committing good or evil is not a demi-god, but a shrunken caricature of what man ought to be—so at least does common-sense pronounce. The Yogin, as also the user of drugs, may win partial or total unconsciousness and, with it, isolation and peace; so much must be granted. But that this peace and isolation have the exalted significance attributed to them in the Yoga metaphysics, is quite another matter. We know in any case that he is much deceived in the magical powers he ascribes to himself. His self-deception, the corresponding self-deception of the user of drugs, and we may add of classical Christian mystics, constitute one of the most pathetic chapters of human history. To aim so high, and to fall so low, is in truth both deep tragedy and high comedy. Yet the stupefied Yogin is one of the blundering heroes and martyrs who mark the slow progress of humanity.

In this connection, we must not fail to remember that those who make the final descent into unconsciousness are fortunately only a small fraction of the followers of Yoga. Most of them never reach that stage. Similarly, the final round of the "ladder" of the Christian mystic is reached only by a few, while millions practise without realizing it, and much to the increase of their peace of mind and moral energy, the initial steps of meditation and contemplation.

What features common to the religious drug-intoxication of savages, to Yoga, and to the higher forms of mysticism justify their classification together under the term mysticism?—The avowed pur-

pose of all three is to transcend the limitations of the individual self and to achieve some sort of connection with the "divine." This common purpose corresponds to an essential similarity of that which actually takes place under the action of drugs, of the Yoga discipline, and of Christian mystical methods. They all produce a reduction of mental activity that tends to dissociate the individual from the world, and thus to liberate him from the pain, the distress, and the efforts incidental to ordinary life. Thus, a temporary, if not a final deliverance from physical and moral evil is secured. In all three, the reduction of mental activity culminates in complete unconsciousness.

A sense of quickened life and of marvelous, unlimited powers, present at a certain stage of the drug-ecstasy, of the Yoga "isolation," and of the Christian mystical trance, is another common result of these different practises. It is true that in order to reach the goal set by the Yoga system it is not necessary to secure these powers; they appear to belong to an older circle of ideas that have survived despite their loss of logical connection with the central Yoga ideas, namely the "isolation" of the self from the world and absorption in the All. In such a scheme as this, the acquisition of magical or divine powers in order to control nature is obviously an alien element. If it has remained in Yoga, it is because of the strong appeal it makes to human nature. In the religious drug-ecstasy of the savage, where the thought is not of self-surrender but of indefinite enlargement of the self, the acquisition of some part or the whole of the powers of the gods is of the very essence of the process. In Christian mysticism something similar is logically expected.

A belief in the acquisition of "divine" knowledge is another and the last common trait we need mention. The idea of revelation, "unutterable" revelation, that fills so large a place in theories of mysticism, is present in the lower mysticism, in Yoga, and in the higher mysticism. But it should be recognized that in these three types of mystical practises the emphasis is really placed not on knowledge as such, but on knowledge serving as an instrument for the enlargement, the perfectionment, or the suppression of the self. This fact is often ignored by the philosophers of mysticism.

What meaning and what practical truth there may be in the assurances and claims of the mystics, are problems demanding for their solution the cooperation of the psychologist and the philosopher.

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A MEDIEVAL ASPECT OF PRAGMATISM

THE historical setting of a doctrine is not in itself a criterion of its value. It may be interesting, significant, or even dangerous for a doctrine to be in the mouths of certain men, but in itself this constitutes no philosophical criterion. Truth, though a jewel in a swine's snout, were none the less valuable, even though it suffered eclipse or had to be rediscovered. Problems so far unsolved are wont to assume, as the ages pass, a framework conforming to their environment. And the fact lends much to the interest of thinking. Surprise always awaits the investigator because fundamental issues, like Old Man Proteus, are constantly reappearing in new shapes; despite our best efforts we never so much as perfectly formulate certain problems. Philosophy therefore in general professes, and ever ought to profess, a perfect charity for her children, even for prodigal sons. Probably not a few, however, of those among us who have concerned themselves chiefly with modern movements of thought will be surprised, perhaps chagrined, to find that Pragmatism is a descendant of a medieval Church doctrine and that its antecedents consorted with those thinkers who tried to make gold from sulphur and believed in the seven days of creation.

One can not too strongly insist, however, that this has nothing to do with the truth of the doctrine, unless, indeed, truth be finally defined as an association of ideas having emotional satisfaction. We might not agree with the Solipsism or the monetary Instrumentalism of Protagoras, yet that would be no reason to repudiate whatever else he stood for. Even a Pragmatism that had associated with Seven Deadly Sins might, for aught we know, establish itself as a valid method of philosophizing. We establish the character of men in part by the company they keep, but ideas are beyond all such considerations. They are in a certain sense of the word beyond good and evil, a fact which, as we shall later see, has important bearing upon pragmatic methods. Gorgias, though he was a quibbling Sophist, Superman, and philosophical Nihilist, nevertheless made a contribution to our positive knowledge. At very least he showed the limitations of imagination in dealing with nothingness as contrasted with something, also the meaning of communication as significant and representative, and what is implied by contradiction—all of them aspects of the thinking process which still possess a peculiar interest in the discussion of Pragmatism. So also one must recognize as a mark of philosophic temper the open-mindedness which grants that saints in tortured bodies may yet have moments of extraordinary penetration.

Nowhere in the history of philosophy does the difficulty of formulating precise issues show itself more markedly than in dealing with the chameleon-like aspects of Pragmatism. Not only do the "varieties" seem to contradict one the other; according to one leading exponent the very Law of Contradiction demands its own "abrogation."¹ Our purpose in this paper, however, is to consider certain specific principles which may be regarded as central, though without reference to any known "System" of Pragmatism, and to trace them so far as possible to their axiomatic basis. In general the term Humanism, though it suggests a somewhat misleading relationship to the highly "intellectual" Renaissance, fairly characterizes the leading doctrines of Schiller and James in so far as man is regarded as the central interest in terms of which all things in heaven and earth are to be interpreted. Humanism in that sense often assumes the guise of a geocentric, or even anthropocentric, teleology which has much in common with medieval theology. The term Pragmatism preferred by James as implying the practical, biological, ethical or sociological function of all truth, in effect also continues the earlier tradition that the drama of creation plays about the moral character, mental attitudes, or physical well-being of humans.

"The whole function of philosophy ought to be to find out what definite difference it will make to you and me, at definite instants of our life, if this world-formula or that world-formula be the true one," wrote James (*Pragmatism*, p. 50). The definite difference is throughout "practical," "moral," "active," as opposed to mere interpretation which makes no appreciable difference. Such "Intellectualism," or barren Conceptualism, because it does not bring about any "change" in human affairs, is subjected to the anathema of the higher authority which asks: What service and practical assistance to men? *Cui bono?* In the *Varieties* James illustrates the general principle by rejecting as "absolutely worthless inventions of the scholarly mind" those conceptions of God which do not affect men's conduct. A human being can not perform any specific act the better to adapt himself to divine "simplicity," but he can adjust his conduct to attributes inspiring fear and hope. Hence the latter are truly existent in the character of the Deity. He is omniscient because seeing us in the dark involves a difference to us at definite moments of our lives; and good, because our saintly life requires such an idea for its more successful fruition (pp. 444-6).

This, as need hardly be pointed out, was a general principle

¹ F. C. S. Schiller, *Formal Logic*, pp. 111 ff., 330.

very characteristic of medieval thought, the Church, or Kingdom of God, taking the place of James's less definite ethical or practical well-being. All else was instrumental to this end, intellectual interests being measured in terms of the hindrance or furtherance which they afforded this exalted purpose. An intensely practical use was found for all accredited learning, and the standing of given doctrines was a function of that usefulness. Theory for theory's sake was, indeed, tolerated so long as it did not interfere with the established good of men, that is, so long as it made no practical difference. The Alchemists indulged in any theory of transmutation they found most acceptable so long as they steered clear of transubstantiation. Euclid and Democritus were expounded, and mechanistic accounts of nature attempted in which the practical aspect lay in avoiding any reference to man's position in time and space or to the movement of atoms in the direction of his salvation. But when, even as late as Giordano Bruno, doctrines dangerous to the social fabric were fearlessly worked out, the practical interests did, on the contrary, take precedence over theory to the personal discomfiture of thinkers. In general, however, the assumption that theory is harmless not only permitted the survival of ancient science even in monasteries; the high purposes of the Kingdom joined hands with "logic-chopping" and developed a refined technique of verbal inference, wholly innocuous and serving a useful end as willing "handmaiden." In this connection one may also speak of a medieval Pluralism, one which was subjective rather than objective, one which recognized independent compartments of mental life, a charity which embraced even contradictory doctrines if they were instrumental to the attainment of political, social, biological good as represented in the Kingdom of God.

A point of view very similar to this is presented in James's account of the pragmatic "corridor" (*Prag.* p. 54) where we also have many compartments, representing the traditionally vital issues of philosophy, to which the corridor gives access without invidious distinctions. In one chamber you may find a man writing an atheistic volume, in another some one on his knees praying . . . , in a third some person excogitates a system of idealistic metaphysics, while another philosopher in the next room shows the impossibility of metaphysics. All are left quite undisturbed so long as they acknowledge the pragmatic method of testing by fruits, consequences, cash-values toward established good. And throughout we have the implication and direct statement that what men think matters little, so long as it does not stand related to that good. Intellectualism, theory for theory's sake, thus becomes once more either

a negligible ineptitude, or, when it pretends to dissociate itself from the pragmatic method, a dangerous heresy, what men *ought* not to believe. The attempt to represent anything in the world as independent of man runs counter to the spirit of Humanism. Rationalists, who try to set up symbolic shadows, attenuated and bloodless, conceptual proxies with themselves left out, are, therefore, to be fought when harmful, ignored whenever possible, and used whenever they can be advantageously, just as God is best used—in moderation of thought. (Cf. *Varieties of R. E.*, pp. 506, 7.)

This teleological quality of all true knowledge is perhaps more directly set forth in various essays of F. C. S. Schiller. In the one entitled "‘Useless’ Knowledge" the conclusion is reached that such a title would itself be a contradiction in terms since there can really be no such thing. "True" simply *means* "useful." And while it is not proposed to apply pragmatic tests to the dictum: "The useless is false" we have it by implication at least, in the form that what has not yet established its usefulness is *not yet* true. Usefulness, again, *means* human usefulness. It is in the light of a "teleological psychology" that all problems of logic and metaphysics are henceforward to be examined [and mostly rejected]. The "sway of human valuations over every region of our experience" is "asserted" and "metaphysical validity" made a function of ethics. "At a blow it [Humanism] awards to the ethical conception of *Good* supreme authority over the logical conception of *True* and the metaphysical conception of *Real*. The Good becomes a determinant both of the True and the Real." (*Ethical Basis of Metaphysics*, pp. 8, 9.)

We do not here propose to discuss the possibility of a coordination of such a general principle with others promulgated by the same writers. James, recognizing the extraordinary variety and even disparity of human "goods," set up as a corollary to the main axiom the proposition that truth is no less various and sometimes disparate, as in the case of the Ptolemaic astronomy. Human purposes and ends bring about many interpretations of constellations as of atoms, and there are many types of men, some tough-minded, active and adventurous, and others in their last sick extremity. What each severally needs is the noetic touchstone, though a certain standard of product is demanded from the "philosophic workshop." Truth must be neither too "saccharine" nor "idyllic" and have occasional flavor of the "epic." Questions concerning the typical *homo* whose good might serve as a basis for reference when pragmatists disagree, like the ethical question of a good more inclusive than that of humans, or that of the representative quality of

contradictory "truths" (Ptolemaic *vs.* Copernican astronomy) are here subordinated despite their importance in dealing with a theory which presumably maintains its identity. It is the logical implications of a doctrine which asserts the ethical good of man (whether individually or collectively) to be the criterion (howsoever determined) of whether things exist or do not exist (Reality), and what their several relationships are as we apprehend them (Truth), which shall now concern us.

As clearly and as validly as a theorem in geometry is traceable to its axiomatic presuppositions, so a theory of human good as index of all true insight involves certain assumptions. These being more ultimate than the proposition itself may be expected to help in the elucidation of its complex factors. Stated in the briefest and most general form as the present writer understands the doctrine, it asserts affirmatively, that all things are so coordinated with the valuable interests of men that correct knowledge of any existence or event contributes to those interests; and negatively, that a representation of things which does not so contribute is contrary to fact. To know genuinely is to find that knowledge good. Now in common with other theories of knowledge this one assumes: (a) Existences, real things, and relationships among them; (b) Definite relationships between mental states and what they cognize; (c) Causal relationships of the simplest kind involving the regular sequence or accompaniment of one event, character, or existence upon another; (d) Definite qualitative characters in our mental life by virtue of which we are able to infer concerning the character of objects as known. These may be regarded as axiomatic in any positive theory of knowledge.² In addition we have in the postulate under discussion: (a) The *specific* quality of our mental life by which we infer that existences or relationships obtain in a sense other than mental, is value other than that of conceptual consistency (which is transcended by usefulness, beneficial consequences as above discussed). (b) The cognitive act which fails to have the quality of furthering those interests is limited to something purely mental, *i. e.*, provides no basis of true knowledge.

A causation is thus assumed for all true knowledge in the definite sense that it invariably results in bringing about positive and specific consequences, a *real change*, a *difference*. Cognition is held to be instrumental to purposes over and beyond that of intellectual conception. Its position in the chain of causation is shown not only by results accruing from true comprehension; as every cause is in

² For their Pragmatic affirmation in James's *The Meaning of Truth*, Preface, xii, xiii.

turn an effect so the antecedent (knowledge) is itself a consequent of the "real world." Something other than mental states are assumed throughout to be in functional relationship with the mind in its act of knowledge. Correct information is never made from the "whole cloth," it is an outcome of "facts," and "corresponds" with them. Thus we have a chain which binds the "fruits" with their antecedent, knowledge, in the same way that knowledge is dependent upon its antecedent, reality. Good is the outcome of truth which in turn is the exponent of the real. This interdependence which we have called causation does not, of course, imply interaction. Whether mental states are as such to be regarded as products of some "other," say matter, is a question which need not here concern us. For our problem involves the relationship of antecedent to consequent (or of two coexistents) in the sense that a given quality in one presents an invariable dependence upon a quality in the other. A change in the "real" world involves a change in knowledge of it, and knowledge in turn produces its benevolent fruit.

That the series can not be broken without surrendering this portion of the pragmatic method will, perhaps, be clearer by examination of alternative series. Let us assume in the first place that the break comes between knowledge and its fruits, in which event we have the series:

Reality → True Knowledge → Bad Results

This is the obvious contradictory of the principle under discussion. In case we divorce the first and second terms we have:

Reality → False Knowledge → Good Results

which not only again contradicts but involves the doctrine in an ambiguous position with reference to an assumed real world. Solipsism is quite generally repudiated by the supporters of Pragmatism. There is always the "something else which it means" (Professor Dewey), the "Facts," "Nature," "Reality" of which knowledge is a "Report" (James); and this report is a "common" or "social" one, which implies that correct cognition is not an arbitrary or hallucinative act but one obeying a definite order and bound up with the character of that "Other." Every positive theory, indeed, assumes as noetic axiom a definite order of antecedent and consequent here. The status of a "false knowledge of the real world" is that of a straight line not the shortest distance between two points,—neither knowledge nor having anything to do with the real world in the sense of those words commonly understood.

Thus the teleological character of knowledge (if it is to be so characterized) is not a phenomenon to be isolated from the charac-

ter of reality; it must be functionally an expression of that reality not only in the sense in which mental states are themselves (whether phenomenal or something more than that) in the plexus of "being," but as a direct result consequent upon that character. By the good quality of true knowledge we therefore infer a certain attribute of the thing truly known; more fundamentally still it may be said that a certain activity of reality (including mental states) alone makes possible the experience of good or the discovery of purpose anywhere. But for simplicity's sake we shall not urge the latter point, being content to rest our case upon the proposition that true knowledge of a thing is our guarantee of the thing's character. And if, therefore, a certain product (C) is the result of true knowledge (B) which in turn is an expression of some "Other" (A) invariable in its relationship to B, then C is an expression of A. In other words, if true knowledge is teleological the reason for it is to be sought in reality itself. James himself stated our premises as follows: "Truth lies *in rebus*, and is at every moment our own line of most propitious reaction." (*Meaning of Truth*, p. 74.) We add the conclusion: *In rebus* is to be found the basis for our line of most propitious reaction. The "*fundamentum*" or "matrix embracing idea and reality" (*ibid.*, p. 163) is a world in which teleology obtains.

Now James repudiates *toto calo* every form of teleological hypothesis *in rebus*. He not only finds the Socratic conception of rains falling and fruits ripening for the good of man impossible; he definitely asserts the impossibility of accepting at present any hypothesis of design, any recognizable order in the course of things. (*Varieties of R. E.*, pp. 438, 492, ff.) Any radical Pluralism would also seem to make the assumption equally impossible, as also his negative attitude toward Optimism. But again we are not dealing with a "System," though the point might well be raised concerning "Meliorism" whether a gradual progress toward the "better world," even though mediated through our efforts, would not imply the "*fundamentum*" of some effective teleology. Nor would it be impertinent to ask (since Pluralism is no friend of Nescience) if some sort of hegemony be not assumed somewhere over the "big, blooming, buzzing confusion?" Very probably the presumption of teleology was one taken as applicable to particular, isolated portions of reality, there being no intelligible end "toward which the whole creation moves." It is only by some such interpretation, at any rate, that we can understand the assumption of teleology for mental states of the truly knowing kind. As birds or insects by long successive adaptations attained the capacity of flying, so the intel-

lectual penetration of men in process of natural selection gradually shuffled off the useless and abstract forms, but neither one nor the other process was at any time related to some scheme of the cosmic whole. Thus one might avoid entangling alliances with Monism.

To the present writer such an isolation in the instance of our knowing process does not, however, seem possible. Knowledge is always potential omniscience, that is to say, there is no known limit to the range of its content. The noetic act embraces the farthest star which we perceive. Truth when genuine has, by hypothesis, James's "*fundamentum*" with every reality thus known. If, therefore, that knowledge be assumed to have a teleological purpose it must be that any reality (however pluralistically conceived otherwise) provides the basis for this interpretation. And unless some valid distinction is to be made between true-knowledge-of and actual-character-of reality the assumption of a teleology in the one involves the same for the other. Every positive theory of knowledge is, of course, involved in the predicament of getting from one to the other. There is always the possibility that our every cognitive act is a dream, that the order of mind is in no way coordinate with the "other" which it knows; and Pluralism, radically understood, would seem to require this divorce. But that is not our present concern. Spinoza's "*Ordo et connexio idearum idem est ac ordo et connexio rerum*" if *rerum* be conceived as that "other," the thing known, remains the axiomatic basis for positive theories. For to assert the contrary is to forego all save the dream process. (Cf. *Meaning of Truth*, pp. 8-24.) James, however, postulates "correspondence," "agreement," of ideas with reality and specifies the definite "leading" of ideas. The specific character of the relationship could hardly be more positively stated than as follows: "The concrete pointing and leading are conceived by the pragmatist to be the work of other portions of the *same universe to which the reality and the mind belong.*" (*Meaning of Truth*, p. 191, Italics added.) If the "pointing" and "leading," then, be supposed to appertain to all truly known things (and pragmatists do not limit the method to specified portions of the universe of discourse), we must assume that the function is an expression of the same universe to which reality and the mind belong. The question of "degrees of truth" in such a relationship would seem to involve degrees of teleology, a conception easily applicable to some "*terminus ad quem*" (human good) but not to the universe *a quo*. But this again is a problem of Pragmatism's cohesion as a "system"—which we have here denied ourselves.

Our general conclusion from analysis of pragmatic teleology,

however variously it manifest itself as psychological, ethical, sociological, biological, and whether it be man-centered or of wider inclusiveness (*e. g.*, life as a whole), is that it involves a teleological point of view for all truly known reality. In the expositions of Schiller the human "good" which alone is criterion of the "true" and the "real" frankly postulates a man-centered teleology. Less explicitly the doctrines of James and Dewey presuppose a knowable reality which contributes to definable purposes and ends. What the latter might be was in no need of our investigation, nor is the process as such necessarily instrumental in only one sense of the word. Granted that *any* ends are attained by a process implicating *all* reality, the conclusion is mathematically certain that all reality is teleological. And this would seem to hold true even when the pragmatic method deals with "particular situations," "pluralities of things," particular experiences rather than metaphysical "wholes," because that method does not differentiate particulars being applicable to any given piece of experience, any event, change or thing.

This assumption is one deeply rooted in the ethical consciousness of mankind and as a noetic principle finds place in the philosophies of thinkers not only medieval and ancient, but among other than pragmatists in modern day. Whether some form of universal teleology is or is not involved in the assumption of a positive epistemology we shall discuss in another paper with special reference to the method of Dewey.

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MR. MARSHALL ON OUTER-WORLD OBJECTS

BOTHERING as I am in these days to find reason for believing that there are things existing independently of ourselves—a belief that in common with most people I already have without reason, at least conscious reason—I have read with interest Mr. Henry Rutgers Marshall's article, *Of Outer-World Objects*, in this JOURNAL, Vol. XVI., No. 2 (Jan. 16th). The gist of his reasoning seems to be that in the experience of movement resisted or obstructed, we come on the fact of "otherness;" that in sensations like those of sight, combined with the more elementary experience of resistance, we get a consciousness of "out-thereness;" and that in looking for the ground of the "out-thereness" experience, we reach the conception of "outer-world objects." This last conception is called an assumption, a pure hypothesis, but none the less one verified by countless experiments, "perhaps the most thoroughly validated of all the assumptions made by the conscious man."

Now I find it easy to agree that in resistance or obstruction we have the clearest, most convincing, if not the only, evidence of something existing *other* than ourselves—at least than our will, perhaps the most central thing in ourselves. We freely move, intend and will to move, and then something opposes itself to us; the sense of something *foreign* becomes thereby unescapable to us—it is impossible, at least next to impossible, to think that the opposition is created or begotten by us.

The next step is not quite so unambiguous. Sight, joined with the experience of obstructed movement, is said to give us the notion of “out-thereness.” But just what is meant by “out-thereness”? It is plainly possible that we should see our bodily movements before they are obstructed, or indeed our body while at rest, *i. e.*, before or irrespective of movement. Is this *not* “out-thereness”? Does the phrase, as Mr. Marshall uses it, mean outside the *body*? It is, of course, something to learn the genesis of the idea of a world outside the body; but as such a world includes to each of us the bodies of other *people* (I now take this for granted, though argumentation might be necessary to prove it), and as these other people may be supposably thinking and raising the same questions as myself, a generalized statement of a world outside the body would reduce it to the non-human world, and the meaning of that interesting part of physical existence composed by the complex of human bodies would be left out of account. If, however, Mr. Marshall by “out-thereness” does not mean outside the body, what does he mean?

The third step in Mr. Marshall’s reasoning, I can scarcely get a clear idea of. It is that in which we are supposed to pass from the conception of “out-thereness” to that of “outer-world objects.” These latter are spoken of as the “somewhat that is the ground” of the “out-thereness” experience; they are “entities,” really existing. That they are not, strictly speaking, a part of experience seems to be suggested in the statement that their existence is “purely hypothetical,” that the belief in them is based upon “an assumption pure and simple.” My difficulty, first, is in understanding what these objects are (*i. e.*, what Mr. Marshall supposes them to be). They are the *ground* of our experiences, but the ground of an experience would not seem to be necessarily the same as the experience itself—the ground of a pain, for instance, is not necessarily itself pain, or the ground of heat itself hot—and yet Mr. Marshall gives us examples of “objects-in-the-outer-world” bath-wrapper, bath-tub, towel, water-in-the-tub, which are surely immediate, unquestionable, unhypothetical, sensible experiences, if anything is. Are then the entities which really exist, and are the ground of our “otherness”

and "out-there-ness" experiences, simple duplicates in color, form, texture, *etc.*, of our experiences, a repetition thus rather than a ground? Mr. Marshall thinks that water is an "object-in-the-outer-world," while "hot," when experienced in connection with water, is not—that it is without the characteristic which we call "out-there-ness," and instead belongs to, is part of, consciousness which he contrasts with objects in the outer world; that, indeed, on the basis of experiences like those of heat we come to distinguish between the outer-world *and* consciousness. But I think the fact is that we all naturally and instinctively put heat in the (hot) object as much as we do any other quality, its color, for instance, or its sound (in the case of falling water), or its taste, or its weight; it is only as we analyze and reflect, become "sophisticated" (to use Mr. Marshall's phrase), that we put the heat in ourselves and say that it is not in the object. But if the heat turns out to be in us, what on reflection happens to the sound or the taste or the color or the weight of an object? Are these not also sensations, feelings, a part of what we vaguely call consciousness, as distinct from things that might conceivably exist apart from consciousness—are they not, if we continue to use these spatial terms, "within" us rather than "out-there"? But if so, what, or rather how much, is practically left of these "objects-in-the-outer-world," of which Mr. Marshall speaks—I mean only what is it that is in his mind when he speaks of them? He continues, "Further analysis indicates that this 'out-there-ness' quality within experience, in itself, belongs to the grouping which we call consciousness. It certainly does not belong to that grouping which we call the outer world." This, after what has been said before, mystifies me completely, I confess —though the fault may possibly be my own.

The second difficulty connected with Mr. Marshall's concluding step is that while the belief in "outer-world objects" is spoken of as based on an "assumption pure and simple," the existence of such objects being "purely hypothetical," he also speaks of the assumption as "verified" by "countless experiments," "perhaps the most thoroughly validated of all the assumptions made by the conscious man." I had always supposed that when an hypothesis is verified, verified time and again, it ceases to be an hypothesis and becomes practically indistinguishable from what we call matter of fact—becomes, in short, scientific knowledge. But this is, perhaps, a question of words.

WILLIAM M. SALTER.

REVIEWS AND ABSTRACTS OF LITERATURE

The New Rationalism: The Development of a Constructive Realism upon the Basis of Modern Logic and Science and through the Criticism of Opposed Philosophical Systems. E. G. SPAULDING. New York: Henry Holt and Company. 1918. Pp. xviii + 532.

Professor Spaulding has given us in the preface and brief introduction to *The New Rationalism* so admirable a review of the contents and essential doctrines of his book, that I find it difficult not to quote them in full and then to ask the editor of the JOURNAL to accept the quotation as my review of the book. However, I shall avoid this breach of custom by not looking at the book again until I have written out what I find to be the fundamental standpoints taken by the author. I should add that I have had, since studying the book, the help given by two hours of conversation with the author regarding these standpoints, and that I feel it my chief duty as a reviewer of the book to prevent certain possible misunderstandings of the author's position.

In studying doctrines that are dressed so completely, as are those of this book, in the garb of logic and rationalism the reader is liable to be reminded of Descartes and Spinoza when he should be reminded rather of Plato. I might put it, Spaulding's position is to that of modern thought as Plato's realism is to the thought of Greece in the fourth century before Christ. Yet Spaulding is and is not a Platonic realist. He is not altogether a Platonist, for the simple reason that he is a modern and Plato of course was not. That is to say, at the bottom Spaulding is an experimentalist. He and even the pragmatist can find a common platform, or at least a few planks, on which to stand and grasp hands. He admits that man is indeed engaged in a trial and error process. He claims no infallibility for man's intellect, though he does believe that we discover facts through the intellect. Man's world is subjective, subjective in the sense that it is a selected world, a world, if you will, selected by the nature of man. Over against this Spaulding is not the less a Platonic realist; for there is a world of eternal verities, a world not made by man but little by little discovered by man. In short, the trial and error process called the history of science and of thought is not a process of manufacture or creation but one of discovery.

Perhaps nothing brings out so emphatically and explicitly this realism as does Spaulding's doctrine of values, or ideals. Many a realist would admit the eternal verity and non-anthropomorphic character of mathematics, but would not admit that esthetics, ethics, and religion are logically quite prior to or independent of human nature.

Man's conscience and esthetic taste are no doubt a human selection and in that sense man's art and morals are human; but the good and the beautiful are such not one whit the less independently of man than is the true. In short, as man's nature is not one of the fundamental postulates of geometry, so also is man's nature in no way a fundamental postulate of ethics, religion, and esthetics. The good, the true, and the beautiful form a Platonic world of eternal being not added to or subtracted from respectively by man's appearance or disappearance in the drama of world-history. Therefore they can be and should be studied quite apart from history and psychology. And as a matter of fact they are frequently so studied.

May I add, the book was written in the years of the war and the author clearly felt that one of the most dangerous heresies of modern civilization is moral and religious subjectivism. If man is to regard himself as the measure of all things or to adopt natural selection as the only ultimate criterion, our civilization faces inevitable decadence in the near future. The greater our command over nature through tools, the greater our capital, or command over human labor, and the greater our field of operation, the quicker must come the cataclysm when wayward, wilful, and skeptical mankind bring about another Noah's flood. You may think to reach heaven by a moral tower of Babel built as you will or as your biological architects advise; but you will not reach heaven in that way. Heaven and God are all about you, not to be seen perhaps with your bodily eyes but to be discovered with the eyes of the intellect as you have discovered the eternal verities of mathematics. Spaulding believes it to be the supreme duty of the modern philosopher to combat our subjectivism or humanism, as Plato believed it his supreme duty to combat the men he called Sophists. Such is Spaulding's realism.

The next thing to be done, if we are to understand this book, is to recognize the place of logic in the author's philosophy. Here we quite misunderstand him if we infer that he undervalues facts and verification through experimental enquiry. Mere logic can not verify the conclusions of our arguments; for this can be done only by crucial experiments. Yet logic is to be given a highly important place in man's intellectual enterprise. Logic itself deals with facts as truly as does chemistry; and logic is one of the most powerful intellectual tools or instruments man has discovered. Whether or not we think that logic can be avoided, historically the student has not succeeded in avoiding it. Logic is there; and whether we like it or not, we have to play the logical game. This game and its rules may seem arbitrary; and such is the case in the sense that logic itself is ultimately an experimental enquiry or procedure as truly as is

any other science. None the less if we play the game, that is, if we adopt any given logic, we must abide by the rules of the particular game we adopt.

This last statement introduces us to two of the bases of Spaulding's criticism of modern and current philosophical system. First, what logic are we to adopt; and secondly, the game once chosen, do we obey the rules? He finds that modern philosophers are playing the game of Aristotelian logic; whereas the most advanced or the most exact sciences have a new game of logic. The Aristotelian logic assumes a world of substantial things and their attributes, of interacting things causally related, and in general of things related by similarity and difference. In short, it is a logic of subject-predicate propositions and a logic of classes related by exclusion or inclusion. In contrast, the logic of the exact sciences is a logic of relations. It is a logic of symmetrical, asymmetrical, transitive, and intransitive relations, of types of order, of series, and the like. Its terms are variables and these variables are functionally related.

In deciding between these two logics Spaulding is thoroughly an empiricist. As a matter of fact modern science by its logic has succeeded in solving problems the Aristotelian logic has not succeeded in solving. As a matter of fact modern science finds its relational logic not only usable but in agreement with the results of experimental enquiry. Whereas the Aristotelian logic is found to be inadequate. In the judgment of modern science we do not live in a world of things and substances, of attributes of substances, and of causal interrelationships. Rather we seem to live in a world whose relations can be external to the entities related, a world variously ordered, a world containing series, variables and functional relationships. Accordingly Spaulding condemns the modern philosopher for continuing to play the wrong game. This philosopher is assuming a world that modern science fails to find, really a world of the ignorant and of our pre-scientific ancestors, a world of things and their qualities.

As a consequence the modern philosopher has hopelessly divorced himself from the remainder of the modern intellectual class. He is trying even to solve problems raised regarding science by tools that have been already found inadequate within science. No wonder that modern philosophy as a whole has reached an *impasse* and that the solutions offered by the several systems form a series of paradoxes and even absurdities. Thus our author examines phenomenalism, subjective idealism, positivism, and pragmatism and finds them to be causation philosophies; again he examines objective idealism and points out that it is a substance philosophy. That is to say, these philosophies are trying to solve problems by means of respectively a

causation and a substance logic, problems that permit no such solution. In contrast, the author maintains that realism is at bottom an effort to adopt the new logic of science and that this philosophy shows promise of succeeding in solving the persistent problems of the traditional schools, in avoiding the old paradoxes, and in bringing back philosophy once more into partnership with science.

But even if we pass by the question: Which logic? the traditional philosophies should at least play the game of the old logic by obeying its rules. Here the book introduces the criterion of self-criticism which the author made use of and defended in articles published a decade and more ago. If a system claims to be logically consistent, it should stand the test of self-criticism. It should not tacitly assume as an initial postulate what it denies in its conclusion. For example, absolute skepticism should not assume the possibility of knowing in order to show that all knowledge is impossible. Phenomenalism should not assume a knowledge of "the world of things-in-themselves" in order to prove that this world transcends our possible knowledge.

The final one hundred and fifty pages of the book are given to a critical and constructive formulation of the basic standpoints of realism. Here too I would emphasize the underlying spirit rather than the detailed results. Realism is loyally empirical. It is pluralistic because the facts ultimately faced by science force pluralism upon us. If I mistake not, Spaulding is deeply impressed by the logical independence found among the fundamental terms and postulates of the sciences. The world is populated by many terms and relations, or entities which simply are there together. It is impossible to deduce them from one another. There is no reason why any one of them should not be absent and the others not remain as they are. They are like the dimensions of space. Why are there three dimensions and not four? The question has no answer except, "We find but three."

This same independence within reality and the resulting empiricism forced upon the philosopher are to be seen in the successive strata we meet in going from the simple to the complex, from the lower to the higher existences. The world might have had only the chemical elements, but we find the chemical compounds. It might have had only the lifeless, but we find the living. It might have had only individual men, but we find societies. They simply are. From the lower we can not deduce the higher, though we may find correlations and one to one correspondences between the strata.

Again, this logical independence makes evolution and history a real process. It is a process of creative synthesis in which the genuinely and irreducibly new comes into existence.

Finally this logical independence is the true basis for a doctrine of freedom. The higher stratum is independent of the lower. It has its own realm of law and though not free in the sense of being lawless is free in the sense of self-government. Life is governed not by the rules of chemistry but by those of life. Mind is governed by the laws of mind, the reason by those of the reason. The higher and the lower are indeed *consistent*, but this in no way prevents their being *independent*. Man has a biological and a physical organization; but he is also an ethical and a reasoning being. His ethical and rational nature do not conflict with his biological and physical characteristics. "The particular ethical and rational characteristics presuppose the particular biological, physical, and chemical characteristics embodied in any one human individual, but they can not be derived from or identified with these latter, though, once discovered, they can in some way be correlated with them. But from this there follows the conclusion—of the gravest importance for the world in the present world-conflict of standards—that ethics is not a branch of biology, even as biology is not a branch of chemistry and physics, and also that conscience, will, and reason, although not undetermined and lawless, are nevertheless free." They are not free in the sense of belonging to a realm from which causation is absent, but are free in the sense that they belong to a realm in which "the ideals of right and justice and truth are present as efficiencies," capable of leading "men to act as they ought to act, and to reason as the implicative structure of reality dictates, and not as tradition and custom and authority would have them reason."

WALTER T. MARVIN.

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JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. July, 1918. *Philosophy and Literature* (pp. 343-355): ERNEST ALBEE.—Maintains the tentative conclusion that science enables us to comprehend the world from without; literature to appreciate it from within; philosophy to prove that the world is one, in spite of the apparent antithesis of description and appreciation. *The Teaching of Philosophy and the Classification of the Sciences in the Thirteenth Century* (pp. 356-373): MAURICE DE WULF.—Develops the three-fold classification of human knowledge: the sciences of observation, philosophy with its sub-divisions into speculative, practical, and poetic, and theology; considers the sociological aspects of this classification. *The Absolute and the Finite Self* (pp. 374-391): HIRALAL HALDAR.—Plato's *Parmenides* teaches that "all particular beings are both finite and in-

finite." The view is here set forth this great truth of Plato is not sufficiently recognized by the speculative Idealism of to-day. *An Approach to Mysticism* (pp. 393-404): C. A. BENNETT.—Mysticism is usually an object of extreme critical praise or blame. The analysis here undertaken seeks to diminish the violence of this opposition in respect to three cardinal mystical doctrines, the renunciation of thought, passivity, and naïve optimism. *The Present-day Conception of Logic* (pp. 405-412): ALBERT E. AVEY.—An account of the effects of symbolic logic on common logic, rendering three important advances, *viz.*, logic as a science of relations instead of a science of the laws of thought, the recognition of certain new forms of logical operations and a consideration of the inner structure of the term. *The Mind and its Discipline* (pp. 412-427): CATHERINE E. GILBERT.—Maintains that "the reality of general powers of mind can not be denied, and that the transference of knowledge or power, far from being a 'miracle' or 'impossible' is the only assumption upon which any education can rest." *Summaries of Articles. Notes.*

Dumas, Georges. *Troubles Mentaux et Troubles Nerveux de Guerre*. Paris: Librairie Félix Alcan. 1919. Pp. 225. 3 fr. 50 (Majoration temporaire, 30% du prix marqué).

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NOTES AND NEWS

PAUL CARUS

WITH the death of Dr. Paul Carus, which occurred on February 11, at his home in La Salle, Illinois, a very interesting chapter in the annals of American philosophical and general intellectual development was closed. Through his connection with the Open Court Publishing Company, an institution generously endowed by the late Mr. E. C. Hegeler, Dr. Carus found a ready means to carry on his propaganda for liberal, religious and social thought.

Dr. Carus first studied at the University of Strassburg, and later owing to the influence of his father, a high official of the German state church, he went to the University of Tübingen primarily to study theology, and in 1876 he obtained there his doctorate in philosophy. Leaving Germany where he was born in 1852, because of its lack of liberal thought, Dr. Carus went first to England and finally arrived in New York.

When in 1887 Mr. Hegeler established the *Open Court* as a bi-weekly journal, devoted to the reconciliation of science and religion, Dr. Carus contributed some articles and upon the request of Mr.

Hegeler came to Chicago to assist in the work of the journal, of which he soon became managing editor. Through the work of Dr. Carus the *Open Court* became a weekly organ for intellectual work of all sorts. The pages of the journal were replete with discussions of scientific and philosophical subjects, among which were many important German papers which Dr. Carus himself translated. In 1890 the large programme of the *Open Court* was divided and the more technical articles were printed in the *Monist* which was then established as a quarterly journal. The *Open Court* continued as a popular weekly, devoted to the religion of science, and has since become a monthly.

From the beginning of its career the *Monist* has contained in its pages articles of the highest scientific importance, many of which have been reprinted in permanent book form. The reprinting of valuable articles led to the development of a book publishing enterprise which has proved to be of high intellectual value. Representative of its work is the Religion of Science Library, a splendid collection of religious and scientific books, which includes in its latter numbers reprints of philosophical classics so reasonable in cost as to permit of a large circulation. This library has also made easily available, philosophical works previously difficult to obtain.

The wide cultural interests served by the Open Court Publishing Company testify to the broad scholarly pursuits of Dr. Carus, whose own writings cover a varied range of topics, prominent among which are Oriental philosophy and religion. As an endowed institution the Open Court Publishing Company could undertake the publication of works of permanent scientific worth without regard to the question of financial returns. The monistic ideals of the institution formulated by Dr. Carus, as an attempt to systematize the results of the various sciences in a unitary world-conception, influenced him to publish many important scientific treatises such as mathematical works of Hilbert, Boole and Dedekind, psychological monographs of Ribot and Binet, and physical works of Mach.

Under the management of Dr. Carus the Open Court Publishing Company has become a unique cultural institution. While it has never given up its function of attempting to save religion from dogma, it has expanded its interests to include the propagation of the best results of human learning. Dr. Carus' ideal of the systematic cultivation of philosophical thought, based upon positive facts, places this distinctly American enterprise in sharp contrast with the accepted tradition of American indifference to intellectual pursuits.

J. R. KANTOR.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

LUTHER AND MACHIAVELLI; KANT AND FREDERICK

HISTORY plays tricks; it is never without humor. The great war has been traced to Martin Luther, the great reformer. Not the credit of it, as we of the Allies would measure credit, has been given to him, but he has been named as one of the very important forerunners of its militarism, Prussianism, brutalism; as one of the early prophets of present day Pan-Germanism and *Kultur*. Thus in *Germany and the Next War*, Bernhardi refers to Luther as making a great early contribution to present German civilization. Bernhardi also claims Immanuel Kant, associating him with Luther in the making of this contribution. Kant did but carry on what Luther before him had undertaken. Bernhardi's appreciation of the two, moreover, seems to have been accepted in the main by Dewey, who uses it as a part of his argument against German philosophy in his widely read and generally approved *German Philosophy and Politics*. Dewey quotes from Bernhardi as follows:

Two great movements were born from the German intellectual life, on which, henceforth, all the intellectual and moral progress of mankind must rest: the Reformation that broke the intellectual yoke imposed by the Church, which checked all free progress; and the *Critique of Pure Reason* which put a stop to the caprice of philosophical speculation by defining for the human mind the limitations of its capacities for knowledge and at the same time pointed out the way in which knowledge is really possible. On this superstructure was developed the intellectual life of our time, whose deepest significance consists in the attempt to reconcile the results of free inquiry with the needs of the heart and thus to lay a foundation for the harmonious organization of mankind.

Luther and Kant, the intended point is, reconciled, or harmonized, "free inquiry" and the "needs of the heart"! They did this by divorcing reason and heart. In their different ways and their different centuries the sixteenth and the eighteenth, they insisted on the separation of the secular from the spiritual, the purely rational from the moral and religious, and so, at least apparently, sanctioned a certain irresponsibility of the former to the latter and at the same time a certain consent and obedience—"Unto Cæsar that which is Cæsar's!"—of the latter to the former. So was the intellectual life

set free and, at the same time, the human spirit given an "inner life," an *Innerlichkeit*, as rich in noble feeling and good will as it was aloof and unworldly; the two being "reconciled" by their very agreement to differ and to remain apart. The intellect was free for scientific discovery and material efficiency, being unhampered by moral restraint, and the soul was splendidly, spiritually free, being unhampered by the quite external worldly necessities. Simply put, the most worldly world could not possibly seem tainted; the noblest ends could justify the most brutal and sordid means. Wherefore, since of just such aloofness of the moral and the natural, of end and means, are the militarism of Bernhardi and his kind and the vaunted *Kultur* of Germany, Luther and Kant, separating Church and State, moral and natural, "real" and "phenomenal," do appear as great prophets of Germany's present *Weltanschauung*.

But are the appearances possibly misleading? Is Bernhardi's claim a fair one? Is Dewey right in recognizing it? As it seems to me, the interpretation of Bernhardi and Dewey is at least superficial. They reach their conclusion either by some change of emphasis or accent or by disregard of pertinent historical contexts. Perhaps by both. A change of emphasis, as Heraclitus appears to have observed long ago, may make all the difference between βίος and θάνατος, life and the arrow that brings death. There is a great difference, too, between "Look out!," when the context is one of passing bands and banners, and "Look out!," when a chimney is falling. As the Frenchman, troubled over his English, said: "It means both 'Put your head out quickly' and 'Pull your head in quickly.' " And, after much the same manner, there is a great difference between Luther, separating spiritual and secular, and his contemporary, Machiavelli, separating spiritual and secular, or between Kant, separating religious faith and natural or temporal necessity, and his king, Frederick the Great, separating the religious and the natural so successfully that he was able to make his reign remarkable at once for the spiritual freedom that it nurtured and for political and military successes. Plainly, with differences of emphasis and context, the same formula may satisfy very different views and purposes; it may be the utterance, actual or virtual, of very different persons; so that one needs, when judging men, to be very careful not to confuse black and white.

Emphases and contexts are easily forgotten or are wholly overlooked even by the careful historian. They are forgotten or overlooked because they are not necessarily immediately in the historian's findings. Rather easily they may elude the "objective" historical investigator. Along with what he actually and objectively finds there is always something unseen that may be very important.

Vision without a "blind spot," in short, is not even his prerogative. Apart, moreover, from this fact, which is familiar enough and which has its obvious application, there is to be reckoned with at the present time another fact. At the present time judgments of men and events are bound to be under the bias of the war values. Thus Luther and Kant were Germans; Prussians, too, both of them; and so, in these years of the great war, in spite of their long enduring adoption by most of the Christian world, they must be—what shall I say?—summarily deported or at least interned. Bernhardi was glad enough to claim them, just as Germany has gladly claimed, but not always recovered, many of her race who have long lived abroad; and Dewey's book, it seems to me, too readily recognizes the claim. When war prejudice reinforces a philosophical view, as in his case, it is hard to give the benefit of any doubt to any one, but it is well, among other things, to remember in general that the present, bringing the past to trial and judgment, should make due allowance for the passage of time. Both the reformer Luther and the great critical philosopher Kant, however seemingly general and abstract in their formal utterances, meant something very concrete and specific in their day and generation. In one's judgments to abstract a specific utterance from its vital connection and context and make of it only a general formula is, quite too often, to end by confusing the death-dealing arrow with life or "Pull your head in" with "Put your head out"—the quicker the better in either case!

Not that Bernhardi or Dewey—who did not wait for the war to become a critic of Kant—is altogether wrong. There is some ground for the position they take. The appearances are not easy to gain-say. Also Germans have very properly become objects of suspicion ever since August, 1914, even the Germans of long ago; especially if one read one's history—how shall I say it?—deterministically. Thus, of course, what the Germans now are they must have been in 1783; in 1517. What they were then we are beginning to understand now. It is true that other understandings of them, quite at variance with that of today, have found expression and support in Germany as well as out; witness, specifically as to Luther and Kant, the whole history of Protestantism and the remarkably versatile and variant Kant literature; but naturally the war has at last made all clear, disclosing clearly and unequivocally the truth *in re*; if, I say, history may be read deterministically. But not all of us can read history so. Were present-day Germany, for example, quite different, I can still imagine some one claiming both Kant and Luther out of the past as great prophets of the present, the truth being that at any time a significant utterance, as it is profound and comprehensive, has to have a certain ambiguity and that a later time will there-

fore have a choice of meanings for it. Indeed the ambiguity at the time of utterance may show itself and is very likely to show itself in some open difference or conflict. In Luther's time, as has been remarked here, there was the very different Machiavelli, zealous except for differences of accent under virtually the same formula; just as, if I may adduce an extreme instance of very much the same thing, in the time of St. Paul there was that other great individualist, Nero, or of Socrates, that other wise skeptic and boastful ignoramus, Protagoras.

So, in the interest of common fairness to a freer history and to men with whom we have long had cordial associations, approving and honoring them, but whom now some would intern at least "till the end of the war," let us consider what case our one-time friends may have. The case presented, we may decide, if nothing more, to give them the benefit of awakened doubts. For my own part I have to feel about the discovery—Bernhardi's claim is virtually this—of Machiavelli in Luther, Luther being thus only a wolf in sheep's clothing, or of Frederick, who was by the way a strangely scrupulous critic of Machiavelli, in Kant very much as I have to feel over the notion of certain Roman Catholics that but for Protestantism there had been no war. Such a conclusion, of course, can be only an extension of the Bernhardi idea of Luther; putting the blame for the war on an unsanctified or an only aloofly spiritual secularism and materialism in general, with which it would identify Protestantism, not merely on Germany's peculiar Luther-inspired *Kultur!* But, manifestly, in view of such a conclusion something has got loose; something has gone wrong. Certainly the Catholic blame of Protestantism can be no more trustworthy than Bernhardi's praise of Luther. Again, to say that Protestantism started the war is only a *reductio ad absurdum* of Bernhardi's idea.

Now in two ways, really only developing intimations in what has already been said, I shall try to show how Luther and Kant may be restored at least to some of the respect and importance that they had before 1914. First there is that fact of the easy confusion and misjudgment, from which these men seem to me to have suffered; a fact that appears to be rooted in the very conditions of generalization affecting all judgment; and, second, there is the importance of specific emphasis and context, without due regard to which no one can really decide what Luther or Kant or any one else who has ever spoken has really meant.

As to the easy misjudgment and the conditions of generalization, it has been suggested above that one formula, the result obviously of some generalization, may satisfy very different views. Any formula, as it becomes general—it is no true formula until it be gen-

eral—must cover an indefinite number of different cases and in the end may apply even to opposites. Pessimist and optimist, speaking in generalities, may say with equal honesty and earnestness:

Nothing to breathe but air—
Quick as a flash 'tis gone.
Nowhere to fall but off,
Nowhere to stand but on.

For good or for ill this is a world in which there is nothing to do but deeds. Kant himself, keen-sighted after a manner all his own in the theory of knowledge, in matters of human experience, recognized just this truth about general formulas. Listen to him for a moment. Said he in so many words: The general, universal, *a priori* forms of thought are all affected with "antinomies"; they all harbor opposites. Yet Kant, probably, should not be allowed to testify here. His ways and his words are too forbiddingly technical. He, moreover, is one of those now on trial. But, quite intelligibly, generalization has ever been a way to the reconciliation of differences. All men, whatever their party or purpose or character, agree "in the abstract"; that is, they agree in general principles. A common flag waves over both political factions and shows, as it waves, a common patriotism. All things that are, agree perfectly just in being, but not in what they are. Thus, like politics, generalization is ever making strange bed-fellows and history, seen under general principles, is bound to teem with humorous fellowships. St. Paul and Nero have been mentioned here as contemporaries who achieved greatly different things under the same general principle. They were both great individuals. For them both a man was a law unto himself; "legally supreme," as the phrase is. Their association, moreover, suggests the special and pertinent interest that the present discussion must have in the fact that general principles, so necessary to all judgments, may bring opposites together. Thus the opposition that a general principle harbors may be and certainly often is expressed in a materialistic and in an idealistic application. Nero and St. Paul differed just so in their individualism; Protagoras and Socrates in their skepticism; and Luther and Machiavelli, Kant and Frederick, also differed so in their separation of the spiritual and the secular, the natural and moral. "Be a man; be yourself," exhorts somebody, and in response sensuality may ensue, or moral endeavor of a highly idealistic order. "Seek pleasure," says some one else, and inevitably some reply with hedonism, some even with extreme asceticism. Nietzsche's "will to power," whatever it really meant to him, has meant to his readers two very divergent things, a most offensive brutalism and a most exalted idealism. He wrote shockingly, brutally, but how often the language of profound moral

and religious experience has been intensely sensuous and materially realistic.

Yes, formulas make strange companions and the historian, especially if conditions create a prejudice, may easily judge characters and events unfairly. But, secondly, in making out a case for Luther or Kant, it is not necessary to depend on the ease of confusion and misjudgment which comes with reliance on formal utterances and general principles. The utterances or the principles are never out of a clear sky nor are they ever unaccented. To speak first of Luther, very far from being a passionless and abstract intellectual, he was a public agitator, a great reformer, a mystic in action. Not in any abstract way, not in an enterprise to which merely intellectual processes had led him, but as a determined impassioned reformer of a positive and visible institution, the Roman Church, which on its side was at once powerful, tyrannical and resentful, he came to insist on the divorce of the secular from the spiritual and called on the German nation, resisting the Italians, to accomplish this object. Parenthetically, have I now betrayed my own cause, since, setting the Germans against the Italians, Luther must indeed appear as after all a forerunner of the Prussian *Kultur* and the present war! Well, to judge him so on such ground certainly would be quite as reasonable as Bernhardi's appreciation of him and the ground for it. The conflict, then, urged by Luther, was really in the interest of idealistic reform. Institutional tyranny was to be resisted and corrected. The individual was to be liberated. The secular life, long exploited by the Church, was called upon to assert itself and in doing so to effect at once recognition of its own worth and right to open expression and the purification of the Church, even the spiritualization of the spiritual. In such labor, too, the secular would have even the approval of God. Not very differently in meaning and purpose temporal rulers had been proclaimed to be divinely appointed quite as truly as were spiritual rulers; kings, as popes; so that, in its inception, the doctrine of divine right of kings was a positive forward step in the direction of human liberty. Later, when the cry came to be that all men were kings, all the equals whether of kings or popes, *being all so created by God*, the doctrine came in its turn very properly to stand for tyranny. And Luther's separation of secular and spiritual, I say, has had much the same history. In its time and context and with Luther's accent it meant progress. Contexts and emphases are indeed important to meaning.

Luther's difference from his contemporary Machiavelli lay in this. For Luther, reformer of the Church, the spiritual was the end to be served; for Machiavelli, at once personally ambitious and nationally patriotic, the secular and temporal. In the interests of Ital-

ian nationality Machiavelli would allow the king, the temporal leader, all that the Church of his time had been employing and enjoying, both all the tyranny and corruption, cunning and intrigue, and all the appearance of virtue and holiness. So was the temporal to get its cue from the spiritual. "A wise prince," we read, "must constantly be on his guard that nothing may ever drop from his mouth but what seems to proceed from a heart full of goodness, mercy, truth, humanity and religion, but particularly the last . . . [Yet let it be] the chief care of a Prince to preserve himself and his state. The means which he uses for that purpose, whatsoever they are, will always be esteemed honorable and applauded by every one. . . . There is a Prince alive at this time (whose name, however, it may not be proper to mention) who has nothing in his mouth but 'Peace and Good Faith': and yet if had inclined either to one or the other, he would long ago have lost both his reputation and his dominions." So was the new end of national life to justify the old means which the Church had fostered *and of course sanctified*. But Luther, while also separating secular and spiritual, reversed the relation, making the former serve the latter, and so, in sharp contrast with Machiavelli, has been proclaimed a reformer. Luther was, in a sense that might very well embarrass Bernhardt, quite *über-Deutsch*. Luther and Machiavelli were contemporaries; their minds might be said to have run in the same channel; but, if one may extend the metaphor, they were certainly not running in the same direction. Although saying Luther, Bernhardt really means Machiavelli. Saying Luther, too, he might be looked upon as showing himself an extremely apt pupil of the great Florentine.

What of Kant? In his case, I think, it is even more important to consider the facts behind the formula, the signs or sources of special emphasis and accent; for the formula of the Critical Philosophy may easily betray the meaning of the philosopher himself to readers of later times. Kant was a very different spirit from Luther. Luther was agitator, reformer, mystic. Kant was an intellectual and, although effecting a real revolution in philosophy, certainly had a good deal of the manner and method of a reactionary. Kant's problem was to reestablish authority instead of to overthrow authority. He felt specially called upon to bring law and order, where in those days of the Enlightenment, when in France Rousseau had been calling for heart against reason and for a return to nature against government, when some one else had said that mankind could never be happy till all men were atheists and when certain European courts virtually had their court atheists as well as their court preachers, there seemed great danger of disorder, lawlessness, an uncontrolled individualism. So did events make Kant seem a conservative, when

in fact he was a progressive. He insisted on law and order, on authority, *but* he made authority a subjective, personally sanctioned principle, no longer a visible external order. Visible, empirical orders, as he put it, were only "phenomenal." Again, he insisted on form in life, even on conformity, but he changes human life from a condition of conformity to something outside to a condition of forming what lay without to a law, a basis of formal constraint, within and *a priori*; and just here we see the first significant emphasis of his philosophy. With regard to conditions of his day he discredits and emphatically rejects the life of external conformity. Is not the meaning and value of a philosophy in terms of what it rejects and supplants as well as in terms of what it sets up?

But, protests some one, although rejecting external conformity, he promptly puts in its place, what can really be no better, the constraint of *a priori*, universally innate and necessary ways or forms, which constitute an order of life as absolute and inexorable as any order of life could possibly be and which suggest a sort of *a priori* institutionalism. True, he styles this order internal, but is there any relief in a mere name? The objector speaks quite accurately; evidently he knows some Kant; but he is leaving out what is all-important, the historical context. Exactly as that doctrine of the divine right of *kings*, in its historical origin, was a doctrine of liberation or, to give another illustration, not impertinent here, as Luther's well known appeal from an infallible Church to an infallible Bible was—in spite of the still retained infallibility—also a step towards human liberty, consistent with respect for the natural human individual reading his Bible and with the doctrine of justification by faith, so Kant's apriorism, his universally subjective, internal, *a priori* institutionalism of thought and will, become in these different days an offensive doctrine, was at the time of its rise an important advance, of course on the visible, external institutional authority and restraint that had aroused Luther's earlier protest, but also and especially on the empirical rationalism and mechanicalism of the Enlightenment, of such men as Hume and Diderot, that so deeply stirred Rousseau. That peculiar rationalism, I should add, only spread the spirit of medieval institutional authority over all nature and, while there was of course advance in all this, the advance that always comes with extension or generalization, there was something lacking. There was a need that Rousseau met, at least in part, with his assertion of heart against reason, and that Kant at least tried to meet when, in the first place, he established law and order, that is, institutionalism, in the self, making them or it subjective and *a priori*, that is, dependent on internal, personal sanction; and when, secondly, as we have now to remark, he insisted that the subject was in reality mas-

ter, being superior to the *a priori* institutional order very much as a king from whom the law proceeds must himself be superior to the law or "legally supreme." A king "can do no wrong," being beyond the law and its good and evil; nor was Kant's real subject, the *ich an sich*, the mere slave or creature of a rational order. Rather was it the maker or giver of such a rational order. The "real" was above the "phenomenal," will above formal, rational, institutional experience; and, as in a democracy all individuals are, like kings, legally supreme, so in Kant's world all human subjects were rationally supreme.

So, two centuries after Luther, did Kant separate the spiritual and the secular, the moral and the natural and rational, warm will and cold reason. Kant's protestantism, naturally, was deeper than Luther's, because Kant came so much later, when the general formal reason, instead of a particular institution, was the primary object of protest. It is true that Kant, being broad-minded and candid as well as polemical, in his protest gave important place to the formal and orderly, to the institutional and rational, but emphatically he made this subordinate to the real self and its real life. He made it means, not end; he made the rational means to the moral as end, subordinating—as may be said—the formal to the vital reason, the positive programmes of experience to its free principle.

Above I mentioned, as the first important emphasis of Kant's philosophy, the rejection of external conformity. Now, secondly, as has been shown, there was his insistence on the *a priori*, the subjective and innate character of the formally rational and institutional; and, thirdly, his declaration of independence in which was asserted the superiority of the real self to all positive law and order. The law and order which the self gave it was superior to; and with superiority on such conditions, I submit, in passing, the self could be trusted, for in the long run it would hardly do violence without warrant to what it had itself set up. At the present time, probably, no one would care to speak quite in Kant's way. Modern philosophy is very generally anti-Kantian. But I venture now to say that in his day, in view of the then conditions, his way of speaking was profound and timely and really progressive. If later, under pressure of the Napoleonic wars, such men as Fichte, great Prussian nationalist, and Hegel, great imperialist, translated Kantianism into Prussianism and Pan-Germanism, the translation was possible only by neglect of Kant's emphases or by complete inversion of them. In the Kantian apriorism Dewey sees a prophecy of the German bureaucracy. I can see it there, too, but hardly as Kant's meaning. In Frederick the Great Dewey sees—how shall I put it?—Kant's appropriate king, as it were the royal agent or executor of the Criti-

cal Philosophy, and Kant himself, perhaps lacking discrimination, as is not unusual with contemporaries, seems to have respected Frederick, if not to have acclaimed him, but in the great distinction of the secular and the spiritual, the rational and the moral, Frederick, while outwardly perhaps resembling Kant, really inverted the Kantian emphasis, as aforesaid Machiavelli had inverted the emphasis of Luther.

Finally, in any appreciation of the Critical Philosophy it is certainly important to keep in mind that neither of Kant's two important distinctions, both so fundamental to his philosophy, that between the real and the phenomenal, or the moral and the natural, and that between form and content or matter, involved the ordinary dualism sometimes inferred. In each instance the two things distinguished were quite inseparable; they were not two worlds or two substances; they were two, in the first instance, only as end and means and, in the second instance, as general law and particular cases, a principle and its applications, may be so counted. Certainly the sharp dualism, the two world view, that Bernhardt enjoys and Dewey criticises, was not Kant's intent, although, as has to be conceded, the philosophy can be read in that way at this time. Again, with regard to the distinction between form and content, it is also important to keep in mind that the *a priori* forms, so-called, the basis of what has here been called Kant's *a priori* institutionalism, space and time and the causal relation, were the enabling stand-points, or conditions of mind, of such very general disciplines as mathematics and natural science and so were not in any sense provincial or national. Nor, spite of recent claims, were they even Prussian! For the understanding of them, furthermore, I suggest that Kant's taking them from the external world and gifting them to the subject—with what constant emphasis he did this!—should be associated with the modern human interest in exploration and travel, the modern study of history and the modern sense of human independence and achievement, and with all that these have meant to modern social, political and intellectual life. To speak generally, before Kant's day and generation space and time and causation and all that they held had been quite external to man and had accordingly constituted only so many limitations—from without—of his real life. Their world was in no sense his world. But Kant—to be sure only as a philosopher does such things—made man the great gift of them and, as at a stroke, all things spacial and temporal and all things causal, that is, productive or creative, were revealed as intimately human. The earlier limitations of distance in space and in time and of activity from some quite transcendent power gave way and there came to man a sense of the unity of all life, temporally

as well as spatially, and a sense of his actual participation in the causation, the creative life of the universe.

Kant's *a priori* formalism is too commonly appraised merely from the light that the single work, the *Critique of the Pure Reason*, throws upon it, but its full value certainly should not be got in that way. The other great *Critiques* are most important. Thus, there is little left of Kant's mere formalism—of his *a priori* institutionalism—after he has completed his philosopher's story; little that is Prussian and offensive, I mean; and surely he ought to be heard to the end, to the end of his story as well as with full regard to the context of his times, before being judged. His *a priori* formalism, at first, may seem to impart tyrannical rigidity, a military or bureaucratic character to experience, but in reality such is not the case. Only by a set-up, an asserted and accepted formalism is experience, reliable and scientific experience possible, and in the *Pure Reason* Kant points this out. But Kant's lines of formal restraint are drawn very broadly and then they constitute, after all, only the terms of a sort of universal working *hypothesis*, the formal bases of science in general, and so can have no authority or rigor other than this. There is something immensely useful and efficient about such a definite standpoint, but nothing dogmatic or tyrannical. The *Practical Reason*, although it is virtually a declaration of independence against any possible tyranny from the *Pure Reason*, may appear in its own field and in its own way to be forbiddingly legalistic. That *Categorical Imperative* of Kant's, for example, has given many of us pause—in more senses than one! Yet Kant's ethical legalism is really quite innocuous. Critics of it offer two criticisms that somehow, to say the least, neutralize each other. First they object to it because it is so formally legalistic, bidding us rigorously do our duty, slavishly live according to law, universal principle, what you will, and then they complain that there is no intimation whatsoever what specifically our duty is or what positively the law is. May not the lack of such intimation be a distinct merit? The very abstract and non-committal character of the *Imperative*, the order to lawfulness, makes it absolute, but also makes it really amount only to a call to rigorous conduct under whatever law experience at the time may warrant. Man *must* always act under *some* law. Law, too, according to Kant, is an object of will.

In such manner, different from that of Bernhardi's appreciation or Dewey's criticism, *may* the *Critical Philosophy* be read. Perhaps today it *is*, in form and atmosphere, a forbidding and unacceptable philosophy, but in its own day it was, I think, a timely and, as the term is now used, un-Prussian philosophy. My suggested reading, moreover, might even be called pragmatic, as well as un-Prussian,

since it justifies the form and atmosphere by reference to the times and finds a meaning that is at least not opposed to the teachings of pragmatism. Why, the Kantian Formalism, in spite of—or because of?—its present aridity, strikes me as most excellent fuel for us pragmatists and our particular conflagration; especially, if in reading the history of philosophy we be idealistic pragmatists. As a theory in its own day and generation, it was pragmatic; and it was also progressive, carrying on for Luther, not, like Frederick's militarism, for Machiavelli.

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HUMAN PERSONALITY AND ITS PATHOLOGY

I

THE most careful observation of what are known as mental diseases and defects justifies the conception of them as defects of personality in all its complexity. The behavior which is looked upon as abnormal and unusual indicates that the personality is disorganized, or out of harmony with its environing circumstances. The psychopathological behaviors of our everyday life represent peculiar slight failures to adapt ourselves to our surroundings in a usual or expected manner. This attitude concerning mental disease is a symptom of the development of a series of valuable scientific conceptions concerning human personality and human character. Human personality may now be looked upon as a phenomenon of science. It is an observable fact of our actual contact with concrete objects, and therefore subject to serviceable interpretation. The critical study of personality as a definite scientific phenomenon promises great value for the student of social and ethical facts; it will provide such students with data concerning human action and its motivation, whether moral or non-moral adjustments, or unusual maladjustments to the social, cultural, and physical surroundings.

II

Personality may be analyzed for psychological descriptive purposes into two large component factors. One of these comprises the actions which represent the actual movements and behaviors of any particular person. In a broad way we have here the sum total of an individual's behavior or actions which are the direct visible signs of the individual's nature. Included here are all the acts of the moral, religious, esthetic, social, scientific, commercial and economic relations. The other major component is a series of more permanent

action elements, which may be considered potential behaviors. We may best refer to these acts as dispositions or tendencies to action. When these dispositions or tendencies are actualizing themselves they influence the general direction which a response adjustment takes. In other words, whatever action an individual ever performs is determined by these dispositions which are cumulative responses centering around an original tendency. The original tendencies represent the inherited phases of personality which usually are modified by the actual experiences of the individual.

Both the actual behaviors and the dispositions may be further divided into predominantly behavioristic or mentalistic factors. This analysis is proposed with a clear view as to its artificiality, but is undertaken in the interests of an understanding of the phenomena to be studied. The predominantly behavioristic behaviors, which are immediate-response acts, are analyzable into the series of reflexes, habits, and instincts. Between these acts and those which are predominantly mental there are such behaviors as emotions and voluntary acts, which, properly speaking, are on the border-line. The outstanding primarily mental acts are of course the perceptions, memories, and thought. It must be remembered that these functions are never isolated, but always factors or component functions of large complex adjustments in which these acts partake in various combinations. Further, these complex acts have no meaning unless considered in connection with the occasions under which they function, and this brings into relief the more permanent elements in personality, since every overt act is a product of the stimulating conditions, and the organic-response dispositions. The predominantly behavioristic dispositions include three types: namely, the muscular, glandular, and neural, which are capacities latent in the glandular, muscular and neural structures. These dispositions constitute the more permanent equipment of bodily functions necessary for adjustments to external conditions, and require only some definite stimulus-object to cause them to participate in a response act. It is clear then that the dispositions or tendencies to action are in a genuine way the personality,¹ while the actual behaviors merely manifest this personality or its changes. It is obvious that what sort of person one is to be depends a great deal upon these latent powers and their development. All the qualities of strength, beauty, and grace center about these factors. We need only refer to the influence of the capacities of the pituitary, sexual, and other glands, to modify the quality of personality and its manifestations.²

¹ So far as behavior is concerned.

² "It is coming to be believed that one of the important factors of the involution period is the atrophy of certain of the ductless glands"—"and that

On the mentalistic side we must point out the innate capacities of attention, impulse, discrimination, affection and others. These are phases of conscious behavior which definitely stress the mental aspects of organic adjustments. These two sets of original tendencies, namely, the behavioristic and mentalistic, are of course absolutely inseparable phases of a unit individual, and act as unit responses to provoking stimuli. The two members of the series of incipient actions are variously organized as instinctive adjustments to environmental conditions and as such form the basis for all acts which the individual performs. The dispositions are therefore both native and acquired, each one being a complex accretion of either native or acquired tendencies or both around an innate core. At this point it may be well to observe that the personality is not in any sense a transcendent existence, but a concrete object developed from actual contact with surrounding objects and persons.

The development of human personality begins as a process of organization of the original instinctive tendencies into instincts, which in contact with objects calling out some response result finally in the instinctive action. This process marks the first stage in the growth of character. The instincts are not uniformly developed action systems nor do they begin to function simultaneously. Another difference between them is that they vary widely in their urge to action, or in other words, they require stimuli of differing intensities. The instincts of feeding, flight, locomotion, and curiosity may be considered as appearing relatively early, while the instincts of gregariousness and sex among others may be looked upon as comparatively very powerful in function. The strength of some instincts, notably those of sex and gregariousness, have influenced various writers to make the entire complexity of human nature center around one or few instincts. When the individual begins to use this organized equipment he prepares himself to acquire various habits of response and many incipient responses. The entire equipment of native and acquired action systems marks the capacity of an individual to adapt himself to the various circumstances which the surroundings and their changes call out. The further development of personality is a process of constant acquisition of new forms of adaptations as the result of the modification of the original instinctive actions. This development parallels a concomitant development of complexity in the environment. The instinctive acts are genuinely modifiable elements of personality, a fact which is readily understood when we recognize that they are in great part dependent upon certain of the disturbances of this period of life are dependent upon an unbalanced relationship brought about between these glands." White, *Outlines of Psychiatry*, 1918, p. 172.

the occasion which makes them function. Attention must be directed to the fact that the instinctive action includes more than the innate tendency which actualizes itself as a simple random conative response; it comprises also more than the mere instincts which are organized or directed random movements. Frequently instinctive actions are plentifully supplied with varying degrees of intelligence, and when modified by various influencing conditions become the intelligent acts which give value to personality. Similarly modified instinctive actions develop into the habits of thought, the complex emotional responses, and the voluntary behavior of highly adaptive persons.

The occasion for the modification of these instinctive acts are the various contacts with objects, other persons, groups and group-products such as customs, laws and other tangible and intangible institutions. Under these various molding influences the person becomes changed both by way of passive submission and active response. The latter point illustrates the give and take which takes place in the course of the development of a person. The individual not only is influenced by the group, but exerts a powerful influence upon other individuals and the group.

The acts of any particular person at any given time are represented by acquired dispositions in varying stages of development, coupled with original tendencies. This indicates the extreme complexity of the activities of a personality, which are always integrations of past activities perpetuated as action systems, complicated by persisting original tendencies, and adapted to currently existing adjustment conditions.

The products of the interaction of individuals and the groups in which they live are acquired dispositions to react in certain ways to surrounding objects and events. In their aggregate these dispositions upon which all action depends, constitute human character or human nature. Such dispositions or potential acts may be classified as interests, sentiments, ideals, convictions, and beliefs. Other traits of character such as desires, ambitions, fears, shames, reverences and jealousies, are also preparations for acts of various sorts. Some of these elements of personality are based upon accumulations of information through past experiences; others are more emotional in their nature, while still others are primarily impulsive in type, depending upon the specific character of their development.

III

The normality of a person is a function of the harmony of his component action elements, and the efficiency of the person depends upon how well the particular combination of action systems fit in

with the environmental conditions. Any serious misfit between the equipment of the personality and the surroundings may mean a disorganization of the action propensities, which may result in maladjustment to the environment. The defects of personality which may occur are of exceedingly various types, and can be roughly described as follows:

Pathological personalities may be due to imperfect development of the psycho-physical tendencies. In such a case, the individual is not fitted with a series of organized action propensities, which enable him to adapt himself to his surroundings. We have here a predisposition to forego the ordinary experiences which human individuals enjoy, and this marks an original failure of the mental and behavioristic tendencies to so group themselves as to allow normal responses. Such a condition indicates not only a defect of immediate adjustment, but must result in a failure on the part of the individual to develop any considerable degree of intelligence. The variations of this type of defect are of course indefinite in number; the many degrees of uncoordination result in differing truncations of personality. This factor accounts for the varieties of morons, imbeciles, idiots and moral delinquents. The organization of certain specific mental tendencies with a corresponding lack of development of others, accounts for such capacities as are exhibited by "idiots savants." We observe frequently in what are otherwise usual individuals the presence of some type of action tendency in an exaggerated or insufficient degree. In most cases these inequalities of endowment or of organization are not observable because the disadvantages which they cause are overcome by various compensations, or by especially favorable environmental conditions. The typical case of uncoordination of original instinctive tendencies leaves the individual in an animal stage of development, and because he is born into a human environment we have that pitiful object, the idiot. The viewpoint here suggested indicates at once an advantage over the almost universally accepted doctrine which classifies the defects mentioned as cases of retarded mental development. If we take speech as an example of conscious behavior we see that the difficulty with the aments is that of a lack of organization of the whole set of native mental and bodily action propensities. The development of speech and the capacity to use it are present in the higher grade of defectives and decreasingly absent in the lower ones. Coordinate with this fact we find an undoubted progress in development of psychophysical organization from the idiots to the high grade morons. In the class of defectives known as aments we observe that the variation from the normal ranges from the idiots, who are confined to primitive behavior in response to physical surround-

ings, to the morons who have an added capacity to adapt themselves to simple social conditions. The complex behaviors involving thought and voluntary action are found here in various degrees of undevelopment.

The next type of personality defect which we may consider is connected with a higher stage of human development. Here the original tendencies are entirely coordinated, but the resulting actions are not adapted to the needs of the individual, with respect to his environing circumstances. This is essentially a case of the development of unsuitable acquired tendencies, on a foundation of coordinated and entirely functional original action systems. These defective personalities build up habits of thought and action which do not comport with the surroundings, thus preventing adequate maintenance and development. As occasions for adjustment we must consider here a very complex environment or series of environments. Unlike the previous sort of defect which failed to provide the proper mechanisms for adaptation to physical circumstances and simple social conditions we have here disharmonies of complex social and cultural surroundings. The defective persons included in this group are incompetent to meet the requirements of the moral and social environment which demands adjustment. The importance of the development of the proper dispositions for a given environment can not be overestimated because every action of an individual is a specific function of adaptation to a specific object or event. We can indicate for practical purposes four fairly distinct types of faulty development of dispositions, with a consequent production of abnormal individuals and actions.

We may take as our first case the personality of the moral delinquent. Students of behavior constantly meet with certain individuals who apparently can not meet the requirements of their moral surroundings. This is of course a problem of social harmony and approval. These individuals have built up action systems which are entirely incompatible with the environing society. Typical examples of these persons are the pathological liars and swindlers.³ Another type of abnormal person is the exhibitionist and other sexual malefactors. The abnormality concerned is a failure to check the development of unsocial action tendencies by the development of suitable habits of self restraint. These individuals permit their original propensities to organize themselves and to develop without due regard for social requirements and demands. Such individuals may be very well adapted to care for themselves in the natural world, and in certain social surroundings, but there are phases of the social *milieu* which seem completely to overwhelm them.

³ Cf. Healey, *Pathological Lying: Accusation and Swindling*, 1915.

The second type of defective personality which is accounted for by wrong development is the paranoiac. This type of person from his early years builds up habits of shunning others, is suspicious, and bears a general attitude of isolation and persecution. This attitude may also take the form of exaggerated self-regard and expand into a highly developed stage of grandeur-delusion. The individual creates for himself a world far removed from actual contact with natural events, and other individuals. This attitude of removal and isolation may finally culminate in a situation extremely harmful to the individual himself and the persons with whom he comes into contact. There is always great danger in the systematic organization of the behaviors and ideas of persecution and of grandeur, because they inevitably result in a situation inimical to society. One of the worst manifestations of these paranoiac behaviors is that which reaches the querulous form. Those persons developing the habits of seeking recourse to the law for all their ills, real and imaginary, may clog up the local judicial system and involve hundreds of people. In all these cases there is at the basis of the difficulty a separation of the individual from his immediate surroundings; a condition which breeds great mischief for the individuals with whom the paranoiac is associated. The paranoiac type of personality defect may be distinguished from some of the other types by the fact that it is a slowly developing system of acquired reactions which are out of harmony with the requirements of the group in which the individual finds himself.

We must consider next the great class of individuals who are grouped under the heading of psychoneurotics. Here are individuals whose original action tendencies group themselves into habits and volitions which unfit them to maintain their expected place in society. They develop such reactions to their surroundings as to create great inconsistencies in their experiences. Consequently the individual's responses are so out of tune with each other that he loses control over his environment. An English soldier says of his obsessions, "I know I'm a damned fool and it's rot, but there it is; I can not help myself."⁴ The psychasthenics develop obsessions, impulsions, and fixed ideas all of which are incipient tendencies of action which are extremely detrimental to the individual and his group. We find individuals exhibiting abnormal reactions of fear, and performing acts which are described as the pyromanias, arithmomanias and others. In this same class are the persons who look with suspicion and doubt upon all the world and its objects. Such types are the so-called metaphysicians who can not go through a day

⁴ Eder, *War Shock*, 1917, p. 109.

without experiencing the most violent anguish because they can not explain how the world was created or whether a God exists.

The neurasthenics establish as elements of their personalities various inhibitions, or action habits which interfere with the ordinary activities of normal persons. These individuals are irritable, constantly fatigued, and in other ways incapacitated to carry on their usual activities. The neurasthenics cultivate idleness in all its forms, and make themselves passive, helpless persons.

In the various manifestations of the hysterical individuals we find evidence of the building of peculiar reaction habits. We discover the most varied truncations of personality along every line of conscious behavior. The hysterical person responds so differently to ordinary objects as to be branded as abnormal. The peculiar reactions are often acquired as protective devices to meet particular needs, such as to shield one from extraordinary circumstances, or normal conditions which appear difficult to these particular individuals. Hysterical reactions involving the ignoring of various sensorial and memorial experiences indicate the acquisition of response tendencies which are substitutions for adjustments to unusual environmental conditions. The individuals frequently lose their self-control and become entirely helpless.

The building up of unserviceable reaction habits and tendencies finds its mechanism to a considerable extent in suggestion. There is always in these cases either a condition of being greatly overwhelmed by external conditions, or the individual starts out with an unstable personality. By an unstable personality is meant the condition of organization of innate action tendencies which allows for useless and ineffective responses. We find then action systems built up which make for paralyses of various kinds; anesthetics, tactual, visual, and auditory defects, aboulias and amnesias. The hysterias of war, which are referred to as war and shell shock, show all types of acquisition of abnormal reaction systems for protective purposes against unendurable external circumstances.⁵ In a general way we might look upon the development of hysterical individuals as persons whose instinctive tendencies can not harmonize and develop coordinately in the particular environment in which they are thrown. The secret of the value in Freudism lies in the fact that the Freudians worked out fairly well the conflicts and confusions which center about one of the important bases of human nature. When psychologists work out as well the mechanisms of development for the other equally important foundation stones of human personality, we shall have reached an important stage in understanding personality and its pathological states.

⁵ Cf. Donald E. Gore, *Lancet*, March 9, 1918, p. 365.

In dementia præcox we find another pathological condition of personality which is the result of the acquisition of unsuitable action systems. In a genuine sense also, the præcox individual is one in whom the innate action tendencies fail to harmonize, and therefore seriously conflict. The result of this is the serious inhibition of the complex integration of the original simple acts, and a consequent incapacity to make correct adjustments. Typical examples of these unfortunate individuals are found in what Hoch has termed the "shut in" personality. Such persons develop response acts which tend to seclude them and cut them off from other individuals. They can not get into touch with the realities of life, and are abnormally prudish and religious. They do not at all fit into the social *milieu* in which they are doomed to spend their days.

There are three classes of defects of personality which may be grouped under the general caption of disorganizations or disintegrations. These three cases show various kinds of dissociation of the original and acquired tendencies after they are organized and developed. In all these cases we have the breakup of the psychophysical organism with its mass of acquisitions resulting in a greater or lesser prominence of the bodily components of the individual. In some cases the disintegration takes place as an atavistic return to a more primitive condition of reaction. We find the manic-depressive individuals dropping off the acquired action tendencies, and responding to their experiences as children do, or as primitive people. These disintegrated persons are lacking in their restraining influences which are generated by interaction with social beings and institutions. In the main these individuals become free and frank, and not only constantly carry their hearts upon their sleeves, but persist in drawing attention to their display. These individuals openly confess their desires whatever they may be, offer all the information they may have about themselves, and in general give themselves wholeheartedly to those whom normal individuals would call strangers. In their display of emotional reactions and flightiness of ideas, they exhibit in a marked way the reactions of children. In the involutional cases there is a clear dropping off of the developed phases of personality and a return to a primitive condition.

The type of disintegration just discussed may be considered as a transverse splitting off of the acquired action tendencies, and thus different from the next type, which marks a longitudinal dissociation of the components of personality. In the various kinds of double and multiple personalities we have individuals whose original reaction systems fail to be harmonized by their experiences and thus can be split off from each other together with the acquisitions built upon them. It is thus possible to find within a single individual

several personalities capable of separation under various circumstances. These individuals differ from normal persons who of course always comprise numerous selves, in that the latter have their experiences unified and harmonious. The various selves represent responses to varying surrounding conditions, all of which are threads of a common fabric. In the dissociated personalities there are different weaves which may become disjointed. The Beauchamp case of Dr. Prince admirably illustrates the development of the different fabrics in what may be called a single piece of cloth.

Finally, we must consider the confusional disintegration of personality in which there is a general dismemberment of the innate and acquired action systems in no definite order. In the various types of paresis we have examples of the complete degeneration of personality with concomitant deteriorations of its anatomical supports to the stage of total extinction. The paretics show us cases in which there is a rapid disintegration of the acquired action systems with undue and unlicensed exercise of the instinctive action tendencies. In these cases we find a progressive severance of the individual from his normal surroundings and occupations with a striking sense of confusion in the entire procedure. When the elemental action tendencies are released from the accretion of socially molded tendencies, they have no survival functions and the individual becomes soon a hopeless and helpless wreck, a depersonalized mass of plastic clay.

IV

The facts of pathological personalities offer numerous warnings against considering them as definite fixed kinds of defects. Any of the types may be affected in several different ways. The classifications of defects which have been made are approximations to actual conditions and serve to illustrate the fundamental hypothesis concerning the nature of human disintegrations, which have been known as mental diseases. We might describe any specific defect as predominantly of one type or other, although it may at the same time take on any of the other forms. Human personality is a dynamic object of extreme complexity, and can not be assumed to function in an inflexible and constant manner. The disintegrations of personality can not be reduced to rigidity, because personality can not in any sense be said to develop in a regular and orderly way but rather in a complex hit and miss interaction of psychophysical organisms, under extremely variable conditions of external circumstances.

The study of human personality and its defects also indicates in a decisive way that the dispositions to actions as components of personality are not metaphysical entities. They are not existing

potential acts, but represent such modifications in the mental and bodily aspects of individual organization as to result in a specific act under certain definite conditions of stimulation. This is a point which unfortunately has been overlooked by otherwise successful students of human behavior.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Processes of History. FREDERICK J. TEGGART. New Haven: Yale University Press. 1918. Pp. ix + 162.

In order that the results of historical investigation may be applied to solving the difficulties that beset our civilization, Professor Teggart would discover the factors that have heretofore been operative in every case of human advancement. The essential factor of advance he discovers (p. 150) to be the release of the mind from the fetters of conventional restraint; whereby an awakened critical and constructive activity produces political organizations and systems of ideas that are new. In the past, this has occurred "when a group, forced from its habitat, ultimately by a change in climate, has been brought into collision with another, differing from it considerably in culture, and has remained upon the invaded territory" (p. 149).

The evils of this preceding warfare of groups may perhaps hereafter be avoided if we may in some other way weaken the grip of customary ideas and ways of doing things. To this end we must distinguish genuine advance as above described from mere progress within the circle of accepted ideas, or through the transmission of culture elements from one group to another. We should not, then, overestimate the value of an educative discipline that works for the inheritance of the achievements of past generations; the essential is the release of all our native powers of thought.

With much conciseness and skill this essay does indeed "bring into one connected view bodies of fact that have hitherto remained disparate and intractable"; "it opens up new problems and new fields of enquiry." But it appears to me that a certain weakness in the argument is not to be explained on the ground that the position is merely tentative or hypothetical; and I regard these flaws as significant in respect to the author's persistent depreciation of the traditional type of historical construction,—a narrative that purports to explain.

An historical theory, such as his, must, as Professor Teggart recognizes, be verified in two ways: first, in the fields of natural

science that deal with its subject-matter—in this case, psychology; and second it must be shown historically that events in the past explain on this principle the present evidence. For *psychological* support, he looks to James' essay, "The Energies of Men," and seems agreeably surprised to find there precise confirmation of his hypothesis (p. 158). He supposes that James explains the release of mental energy through critical activity induced by conflict of ideas. But in fact no case cited by James conforms to this account, and the psychologist emphasizes throughout his essay the *uncritical* character of the release, its dependence upon external stress, emotional excitement and hypersuggestibility. Critical activity he twice mentions as a cause of the sealing up of energies.

As to the *historical* verification Teggart seems to take it for granted. The analysis of "advance" which on pages 149–151 is suggested as conceivable and accepted as an hypothesis, on page 158 "proves to be the essential element through which human advancement everywhere has been made." But, neither on the intervening pages nor elsewhere in the essay can I recognize the slightest attempt to prove that in any given case this description fits the evidence we have of what actually occurred.

If we compare the work of the theorist in the field of geology, let us say in the matter of continental uplift, erosion and sedimentation, we see that he also must verify his theory in these two ways. Here the *natural sciences* involved,—physics, and chemistry, I suppose,—show that the theory is conceivable; the *historical* verification consists in constructing a narrative of continental growth, as in the case of North America, which shows that the hypothesis will, in connection with other accepted factors, give a series of events that finally produce the continent as we now behold it,—the evidence in the case.

The work of historical narration does not only serve to verify such principles of natural science, through showing how the universe in its present order and construction and tendency to act can be explained through them; it performs also the supreme function of *orientation*, giving to every man and act its setting, and to our plans the groundwork and starting point. This long labor of narration Professor Teggart passes over, accepting the history of the physical universe, of the earth, of life and of man as a presence in the face of which the scientist stands. But starting from this present history the scientist finds that the last outcome of his generalizations is the enrichment and consolidation of historic narrative.

The difference between the great historians and that modern school which, with Professor Teggart, depreciates the narrative type

of historical construction is not that the former failed to form general theories; it seems that all of them, from Herodotus down, did that; and were just as concerned as is our author in applying them to the relief of man's estate. The difference seems to lie in their acute sense that an hypothesis needs verification, in the way open to an historian, by showing how the factors they have discovered interact with accepted factors in human action to produce a series of events; these factors must explain not only the resemblance between the several events but also the differences between them, and all the characteristics peculiar to what remains of the past, in monument, tradition, record or institution. How can this be done save in a detailed narration?

On what ground is it asserted that the migration of groups is uniformly or even commonly caused by changes in climate? We are told (p. 76), that "we can not assume in groups long fixed in habitat and ideas any sudden desire for booty or freedom or glory or for 'something unattainable.'" Neither may we assume the absence of these motives. It happens that in the case of those migrations we know best these are the motives to which the evidence seems to point. No psychologist, least of all James, will rule them out as possible or even as probable factors, even as fundamental causes operating through the medium of some Mohammad, Attila, Cortez or Endicott. Why assume a destructive change of climate in cases where the evidence only points to the possibility and not to the actuality of such a change? It seems that the need for finding a "factor operative in all human experience" has misled the writer. It is perhaps true that the *vera causa* of any event is a factor universally present; but when applied to man this universal factor in a migratory movement would prove to be the neural stimulus to certain essential muscles of the body. *Universal* principles still have very limited utility in the field of history.

While the argument is highly ingenious and stimulating to "critical activity" of a certain kind, I must say that I do not find any of its conclusions adequately supported.

PERCY HUGHES.

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The Next Step in Religion: An Essay toward the Coming Renaissance. ROY WOOD SELLARS. New York: The Macmillan Company. 1918. Pp. vii + 228.

"I challenge any one to develop a really tenable system of theology, a system which is self-consistent and relevant to the world as we know it. I am certain that it can not be done." These words of Professor Sellars (p. 164) characterize his book rather better than

its title. For not only does he give little exposition of the renaissance that is said to be coming, and not only is he himself in doubt whether the next step should be described as a step "in religion" (pp. 121, 220 ff.) or—as some readers will say—a step *out* of religion, but the general plan of the book is that of a refutation of all possible theologies. The method consists, in general, in showing, *first*, that theological doctrines originated in mythological and magical notions; *second*, that the influence of these notions is present even in current theology, and *third*, that the necessity of surrendering them in favor of scientific views of the world and of man will involve a complete renunciation of faith in God and a future life. In the end, so the author is convinced, men will settle down to contented enjoyment of the values that are certainly within our grasp (p. 121).

If the book were addressed to philosophers its theme could be described as a thesis concerning the respective relations of facts and values to reality. But the author can not have in mind an audience of philosophical critics, else he would not offer a great number of conclusions from a vast range of research—anthropology, psychology, ethics, the logic of evolution—without analysis of the critical studies that now occupy the attention of original investigators. This remark applies even to what he regards as the crucial point for his theory, namely, the nature of mind, and its place in evolution. He merely asserts that "experimental sappers in the laboratories of biology and psychology . . . are seeking to show that . . . mind is just a term for certain capacities of control exercised by the brain" (p. 99), and affirms his own conviction that the mind-body problem is about to be solved (pp. 99, 149, 217). Thus, without as much as a reference to the upspringing of dynamic and functional psychology, or to any view of evolution other than that of "a closed system of causal relations which spring from the nature of its parts" (pp. 117 ff.), he presents his particular point of view as *the* scientific one. That is, his book is neither philosophy nor science, but preaching. As preaching it might have dispensed with its one exact citation of sources (p. 7), just as it may be excused for such hasty expressions as that "science arose at the time of the Renaissance" (p. 63) and that insanity is due to "a functional disorder" of the brain (p. 146), as well as for the prominence of the personal equation (pp. 99, 149, 164, 217).

Inasmuch, however, as this preaching takes certain positive philosophical positions, the reader will not be unduly critical if he asks whether at one vital point the author has not entangled himself in his own reasoning. He argues for a strictly impersonal view of nature, and he affirms that from this objective standpoint "evil and good differ not a jot from each other" (p. 166); he includes man

wholly and unreservedly within nature, as we have seen; yet he regards man's "will to live and create" as "the source of all value," and he regards nature as "a thing to be used for his own desired ends" (p. 166). If nature includes man, and man creates and values, then the universe is not a closed system that springs from the nature of its parts, nor is evolution utterly indifferent to good and evil.

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JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. Sept.-Oct., 1918. *Études sur la signification et la place de la Physique dans la Philosophie de Platon* (premier article, pp. 177-220): L. ROBIN.—The physics of Plato, while teleological, is also in a sense mechanistic; the purpose of the study is to determine precisely the signification and place of the mechanistic conception. *Descartes expérimentateur* (pp. 221-240): G. MILHAUD.—Descartes was disposed, "to a degree that one does not suspect, to follow instinctively the objective and spontaneous march of the science of his *milieu* and his time." *La Mémoire* (pp. 241-281).—A succinct exposition of the actual state of knowledge on the question of memory. *L'avenir de la Religion et le Mysticisme moral d'après M. Loisy* (pp. 282-308): G. BELOT.—"The capital problem appears . . . to result from the conflict between the apology given for 'Religion' and the radical critique that is made of 'Religions.' The first is stated to be necessary; but the existing religions are declared profoundly insufficient." The idea of the mystic character of morals, advanced by Loisy, and regarded as the essence of religion, is critically examined. *Notes et Documents. La valeur des conclusions par l'absurde*: M. DOROLLE. *Revue Critique*. William Mackintire Salter; *Nietzsche the Thinker*: ANDRÉ FAUCONNET. *Analyses et Comptes rendus*. Victor Delbos, *Figures et doctrines de Philosophes*: J. SÉGOND. L. Dugas, *La mémoire et l'oubli*: FR. PAULHAN. Marthe Borély, *Le génie féminin français*: FR. PAULHAN. *Revue des Périodiques*.

Howard, Delton Thomas. *John Dewey's Logical Theory*. New York: Longmans, Green & Co. 1918. Pp. iv + 135.

Wylie, Harry H. *An Experimental Study of Transfer of Response in the White Rat*. Behavior Monograph No. 16. New York: Henry Holt & Co. 1919. Pp. 65. \$1.00.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held in London on March 3d, Professor Wildon Carr in the chair. Mrs. N. A. Duddington read a paper on "Our Knowledge of other Minds," a synopsis of which follows.

On the basis of a realistic theory of knowledge our knowledge of other minds must be pronounced to be as direct and immediate as our knowledge of physical things. Mental states "lived through" by one person may be discerned or discriminated by another. Thus if we see someone weep we become aware of his grief simultaneously with his sobs, dejected attitude, *etc.*; the grief is revealed to our contemplation in precisely the same sense as the bodily changes are. We may sometimes infer people's emotions from their bodily attitude, but if there were no direct acquaintance with other mental lives we should have no clue for the interpretation of their expressive behavior and it would have no meaning for us. The existence of other selves can not be inferred, as is usually supposed, from the analogy which their behavior presents to our own, because (1) no priority attaches to the awareness of our own selfhood; (2) the alleged inference would have to be made for the first time at an impossibly early age; (3) the behavior of others presents, from the point of view of the percipient, no analogy to his own, and (4) if other selves were merely inferred entities, human affections and relationships could not be what they are. It is consistent with any theory of the ultimate nature of mind to maintain that the presence of other selves and the affective aspect of them can be directly apprehended.

THE nineteenth annual meeting of the Western Philosophical Association was held at the State University of Iowa, Iowa City, Iowa, on April 18 and 19. The programme of the meetings was as follows:

Friday, April 18

The Logical Approach to Functionalism: D. T. HOWARD. Thomistic Realism and Modern Idealism: E. L. HINMAN. Negation in Traditional and Modern Logic: R. C. LODGE.

Discussion, The Function of Philosophy in Social Reconstruction: leaders, A. H. LLOYD, J. H. TUFTS, G. T. W. PATRICK, G. W. CUNNINGHAM.

Address by the President, H. W. WRIGHT: "The Social Purpose of Education."

Saturday, April 19

Philosophy and the International Mind: H. M. KALLEN. The Two Ideals: M. G. OTTO. The General Will: E. H. HOLLANDS. Plural Sovereignty: NORMAN WILDE. The Unit of Civilization: J. H. BOODIN.

THE Trade Union College, organized under the auspices of the Boston Central Labor Union, has issued its preliminary announcement of courses for the spring term extending from April 7 to June 14 of the present year. It has been realized that the best interests of labor are suffering because education for the mature has not been made sufficiently accessible to the men and women of the laboring world. The College is to be in charge of representatives of affiliated organizations, and the instruction is by men of first rate academic standing and experience, including such names as Roscoe Pound, William Z. Ripley, R. F. A. Hoernle and Harold Laski of Harvard, Irving Fisher of Yale, Horace M. Kallen, Felix Frankfurter and a number of others. The names on the Committee in charge are as follows:

Chairman: Michael A. Murphy; Stablemen's Union.

Secretary: Mabel Gillespie; Stenographers' Union.

Treasurer: John J. O'Hare; Newspaper Web Pressmen's Union.

Anna T. Bowen; Cigar Factory Tobacco Strippers' Union.

George E. Curran; Theatrical Stage Employees' Union.

Henry W. L. Dana; Instructor in the Trade Union College.

Dennis D. Driscoll; Horseshoers' Union.

Jeremiah F. Driscoll; Milk Wagon Drivers' Union.

Arthur M. Huddell; Hoisting and Portable Engineers' Union.

P. Harry Jennings; Teamsters' Union.

Fred J. Kneeland; Painters' Union.

Harold J. Laski; Instructor in the Trade Union College.

George Nasmyth; Instructor in the Trade Union College.

Charles C. Ramsay; Instructor in the Trade Union College.

John F. Stevens, Stone Cutters' Union.

William Leavitt Stoddard; Instructor in the Trade Union College.

The work for the spring term includes courses in English, law, labor organization, government, economics and science.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

WRATH AND RUTH

THE Great War has been fought. The dead, brave and poltroon, innocent and criminal, lie in their graves. The maimed, the broken, and the bereaved, with such resignation as they can command, live on, facing the gray decline of unilluminated years. And the great mass of mankind, beholding the fullness of their human deed, are brought face to face with their own reflection, judged of themselves.

What philosopher, in the fall of 1918, can write of human nature and achievement as he would have written in the spring of 1914? What prophet can now prophesy as he would then have prophesied? Or what nation, of all earth's nations, can now cling to the purposes and politics which it pursued in that day, briefly past in time, but in thought remote and buried? The world has changed since 1914; the Titanism in human nature which we who call ourselves the civilized had deemed to lie deeper than Orcus has made the lands to tremble and has lighted cities with lurid flame; fanes are shattered and the old images are overthrown.

Looked at from the vantage of four years' experience the ideals of 1914 seem shot through with the bizarre, the puerile, the presumptuous. Then we believed, with all our ostensible souls, in human self-sufficiency; we believed in hard reason and practical realities, in the panacean powers of science and in the substantial good of properties acquired; we believed, gaily, inflatedly, in our superiority over all that was humanly past and in our ability to insure progress through the future; most of all, we believed in the importance of looking out for "Number One"—whether Number One were a man or a nation—and we trusted unblushingly in the white man's capacity to calculate and get the Good. Even our altruism—and surely it was the most amazing of our egoisms—was unabashed: the world was populous with reformers who called themselves servants, and proposed to be tyrants, with no other credential than the approbation of their own bland consciences. The whole attitude was taken as of course, and regarded as common sense, and lived in as finality; and man's prime virtue was held to be that he was self-made.

Then this self-made man produced his man-made war. There is a satisfaction of the kind we call grim to be derived from the clear fact that war is man-made; we shoulder the responsibility for the majority of our afflictions upon impersonal nature, but this we must accept; and accepting it, see in it plain truths of our own nature. Bitter as it is, the war is none the less a needed medicine; we had lived in a world of self-illusion, and worse, of ignoble self-illusion; the war has shattered this, pricked our bubble of conceit, and has shown us, not Man as he is, which God alone can know, but the civilized twentieth century man of Europe and America, blown with pride, as both worse and better than he had dreamed.

Aye, better as well as worse. All-seeing heaven alone knows what arrogance, avarice, lust, cruelty, diabolism, what storms of spite and flames of murderous hate, man has been shown capable of in this war. But there are other pictures, beautiful even in the midst of terror: heroism, devotion, righteous wrath, gentleness, martyrdom, like pure transfigurations of dross souls, which, even more than the first, give the lie to the idols we had erected.

Among philosophers the rashest of these idolatries was surely that of human reason: we plumed ourselves upon our rationalities, our science; we styled our time an *Age of Reason*, an *Enlightenment*; we paraded our sense of reality and proclaimed the sufficiency of the intellect in the guidance of human affairs. And reason, deliberate and calculating, precipitated this war; and reason, cool and hard-headed, scarred its history with atrocity; and reason—in what name but in that of reality?—pandered to every baseness of material appetite. In such sense is reason our guide!

But again, we philosophers, with what little disguise we proclaimed the biological primacy, in human nature, of the passion for self-indulgence. We called it utilitarian happiness; we chattered about fitness and self-preservation; but we meant to say that the sole key to human conduct is selfish hedonism. And now the spectacle of the war has shown us whole peoples swayed by untaught pity to the surrender of their comfort, and thousands and repeated thousands of earth's common men making a glad sacrifice of their lives for the good of other men and for the salvation of their ideals of right. Far from a first and fundamental, self-seeking is rather a weak and pacifist human sentiment: the springs of great action move elsewhere.

Here, too, philosophers have been self-deceived; and in a third place by their notion that justice and right are an insight common to all normal mankind, a contribution of our common sense. For the war could never have been fought had not each human group in its

turn been founded in the conviction that its cause was the just cause; wherefore we have had before us the profound and sobering spectacle of men in a passion of righteousness slaying one another and giving themselves up to die, each that his idol should not fall. Other motives, some ignoble, some instinctive, have played their part in the movement of the war; but who can doubt that they pale into irrelevancy beside the dominance of these—the reason, the pity, and the sense of right—which so resistlessly give the lie to all that we have adjudged of human nature? And again, who can doubt, in his philosophic moods, that in this great and terrible conflict of man with man, wrath and ruth are revealed as seated traits of that nature, traits which, even when noblest, show how sadly our affairs are out of gear with the world?

The philosophy of our past—amused of its own drolleries, enamoured of its own sagacities, convinced of its own sweet reasonableness—is to-day fordone, blighted and withered under the blazing apocalypse of war. Its problems are no longer problems, nor its solutions ways of grace. It is true that its language is still spoken by the many among us, men with clogged ears and eyes of clay. Even over the ruin ministers of consolation come talking of the eventual human “good” which will make of the war a blessing and will justify all its expenditures, all its blood and torments. “Justify”? But to whom? Are not the slain slain, and can their blood be silenced? Have not the tortured suffered, and are their pains no heritage of ours? Is the past non-existent? For whom, then, is the justification? to whom the good? The man of affairs does well, perhaps, to forget upon what foundations he builds; but philosophy moves not save by reflection and in its essence is timeless.

And again they come to us, the comforters, with the high word Democracy: it is for democracy, for the race, for humanity, that all is endured. But do we know, in our heart of hearts, that the democracy is worth it? If reason is no guide, if our masters are our passions, is it indeed so great a thing to make passion everywhere free? . . . Yet again, religion is to be, not re-born, but re-made: a *new* religion of humanity is to redeem the war's losses. But who, among men acquainted with thought, can dream that a creed made to order can win belief? . . . Nay, what is the truth? Is not pugnacity human, and as deeply human as charity? Three score years of peace we may have, for the war has been fearful and exhausting; but we can not make over human nature in a day, and pugnacity, the brute willingness to fight, is an instinct of human nature. Indeed, it may be, philosophically and truly speaking, as precious an instinct as any that we possess, for who among men, up to this hour, can give philosophical warrant, to me or any other

Manichæan, that this our universe is itself pacifist, and that there is within it no deep and eternal and bloody warfare of good and evil?

To err is human. . . . Aye, aye; but how profound, how inscrutably substantial is this illusion in our human composition? What kind of a universe created me, that it must deceive me? Is it, too, wandering and uncertain or is it curst at the core with duplicity? Are we altogether in error about right and wrong, good and evil, true and false? and helplessly in error? Is there no hold which our reason or feeling or moral sense can secure? Is there no cosmic sanity, no place where men can stand square with their world?

Questions such as these are the old questions of philosophy. But the old answers have played out into shallows, and now we must take them up again, from their source, which is the perennial source of human experience and which to-day is ruddied with new-shed blood. It is a weary toil, and one oft-repeated in the long course of human thinking; but it is ours. At the outset, we may be clear on one point at least: the ornate edifice which we have named Science, and the high ritual which we have called Rationalism, are tokens of a wanton and degraded cult, only to be cleansed save as they be converted to a purer and humaner understanding of the Good. Aforetime it was said, *Tantum religio potuit suadere malorum*; to-day, with the dread fruits of war outspread before us, we must repeat, *Tantum ratio, tantum scientia*—to such ills doth reason also persuade! . . . But at least we recognize the ills; out of the past we have this one conviction to build upon.

What is the Good? That is still our problem; in philosophy it is the sole final problem. *La science des choses extérieures ne me consolera pas de l'ignorance de la morale, au temps d'affliction; mais la science des mœurs me consolera toujours de l'ignorance des sciences extérieures.* So spoke Pascal, doubting at the beginning of our period what the succeeding centuries have wholly justified him in doubting; for this at least we know of man, passionate pilgrim that he is, his truth is an inward and driving truth, not a scaffolding of external things. Nay, Pascal, in his fragment *De l'esprit géométrique*, makes it our very punishment and corruption that the reason is enslaved to the passion, and "it is to punish this disorder by an order conformed to it," he says, "that God casts his light into the mind only after having conquered the rebellion of the will by a sweetness wholly celestial, which charms it and leads it."

Your twentieth century philosopher of science is perhaps little inclined to harken to the recluse of Port Royal, savant and mathematician though he was; yet by some such search as Pascal's, for a new grace and a new illumination of the intelligence, must the quest

of the Good be carried forward. All our powers—reason, feeling, moral sense—are selective in their operation; all alike, they pursue and they abandon pursuit, and their ends are determined by some nature more profoundly ours than we are willing to own. Yet it is just this profoundly human nature, which must also in its degree be the cosmic nature, that we must fathom, if we are to make for philosophy in dividing the good from the evil in all that tempts us. Herein is shown our task, herein the destiny of thought.

To be sure the task is beset with an apparent futility. Often as the quest has been essayed in the past, even so often has it ended in deception; not that naught has been gained, but assuredly naught in which we could rest, no quiescence, no end: the nature of man, which alone can show us the nature of the world and alone can be the measure of the Good, is still dark and unfathomed; how, then, can we hope to do better than our fathers in philosophy? Nay; we can not. But we shall do, perchance not as well as they, but still our part, if we but make the attempt in what new light our new experience has given us. For, indeed, history itself is the portrayal of truth, and the search for values is their essence; we must cease asking for values that are but eulogies of the past; we must find them in life itself, in time, not in eternity. Once more to quote the wise Pascal: "Naught satisfies us save the combat; not victory itself;" and a more ancient and metaphysical framing of the same truth strikes off the very form of nature, man's and the world's, τὸ γὰρ ἔργον τέλος, ἡ δ' ἐνέργεια τὸ ἔργον. To which, again, Pascal adds the codicil: "*Craindre la mort hors du péril, et non dans le péril; car il faut être homme.*"

At the last, so we all know, to earth-born men the death must come, to individuals and to nations and to the race. This fact also philosophers must contemplate and measure. And if we say now that the Good is in our human quest of it, how can we pronounce, foreseeing our doom, aught save its ultimate defeat and destruction? Are not Goodness and Beauty, after all, but a flare in time, to be snuffed out in eternity? Who shall be the conqueror, save the last great Darkness? . . . There is no vanity so great as is prophecy; wherefore I would give such token as I may, using the language of probability, and in the form of a myth. . . .

Through many millennia will have passed the circle of human affairs and through many millennia earth and sea and air will have surrendered to human wills their secretest powers; industry will have branded the continents with man's geometry; the arts will have starred them with monumental splendors; in the domain of thought science will have organized its numbers into a very simulacrum of the perfect cosmos; and in politics all felicities will have been lived

through. But yet other millennia will pass, and the last man will die as certainly as the first man has died. But not without heritors. No doubt, long ere this, man's mammalian companions will have succumbed; but the birds will still survive. Light of weight and swift of wing, able to forage in every clime and to find food in every cranny, the birds are less slaves to gravity than is aught other earth-dweller: they can laugh at man's clumsy aviations, for their domain of the air is not by grace of earth's mineral, but in defiance of it. And the birds are artists and builders and songsters, devotees and exemplars of beauty. Wherefore, long after man's tall monuments have crumbled, and centuries after the bones of the last human race have bleached and weathered, the birds will live on—Earth's final race—and over the tombs of men departed their songs will answer the music of the spheres, as the Sun dies away into the cosmic twilight. Surely it was the anticipation of such a finality which inspired the Wikeno tale to which mine is but the supplement; for these Indians say that the immortals would have endowed men with everlasting life, but a little bird wished death into the world: "Where shall I nest me in your warm graves," it cried, "if ye men live on forever!" So it was decreed that men must die, and the immortals returned to heaven, whence they looked down and beheld men mourning their dead; whereupon mortal souls were transformed into drops of the blood of life, blown broadcast by the winds unto a new birth.

Those only smile at myths who are unacquainted with human history and with the motives which lie deepest in human conduct, and forget that that conduct is the end and its motives the final motives. In our own day and hour we are brought fearfully and inwardly into the presence of two such motives, wrath and ruth, which have transfigured, for a new cycle, the visage of our nature. Let them be but righteous wrath and penitential ruth, for our penitences are our supreme credos, and our condemnations are our fullest measures of this two-fold world. Then may the requiem of the birds be as a last great orison in our behalf, pleading the cause of man, not for what he has done, but for the dust that is in him and the breath which is his life, which are of the Cosmos, which are of God. . . .

*Lacrymosa die illa
Qua resurgat ex favilla
Judicandus homo reus:
Huic ergo parce, Deus!*

HARTLEY B. ALEXANDER.

THE BIOLOGICAL FOUNDATIONS OF BELIEF

DR. SCHILLER'S article on *Truth and Survival-Value*¹ illustrates a characteristic of philosophy found throughout its history, the characteristic, namely, of emphasis upon minor differences of view while important points of agreement are left unnoticed. The history of philosophy consists so largely of arguments and contradictions that philosophers easily acquire the habit of looking for disagreement rather than for agreement. My own point of view in philosophy is fundamentally much like Dr. Schiller's. I have been influenced in the development of my own ways of thinking by none more than by James, and by Dr. Schiller himself; and, though there may be unquestioned differences, as, for example, between Dr. Schiller's subjectivism and my own behavioristic views, still the habit of regarding all human questions from the biological point of view constitutes an important initial point of agreement. In Dr. Schiller's criticism² of what I have called the "pragmatic fallacy,"³ I feel that much of the difficulty and disagreement is largely verbal. Indeed, our essential agreement on an allied subject is shown in the last part of Dr. Schiller's article, where he has applied biological categories in considering the question of pessimism in a manner precisely parallel to my own treatment of this question in an article⁴ that was in press when Dr. Schiller's article appeared.

In the present paper I wish to discuss further the question of the biological foundations of human belief. My procedure will, in the main, be in exact agreement with Dr. Schiller's and with James's approach to the question of belief. The question of the relation of truth to survival-value, however, will eventually arise. As Dr. Schiller says,⁵ "The matter cries out for further investigation." In considering the matter I shall attempt to make clear the real point of difference between my own view as already stated and that of pragmatism of the Jamesian type, a type now represented by Dr. Schiller.

I

Darwinism has been one of the most fruitful sources of pragmatism. After Darwin had convinced the world that man in his

¹ This JOURNAL, Vol. XV. (1918), pp. 505-15.

² *Loc. cit.*

³ *Two Common Fallacies in the Logic of Religion*, this JOURNAL, Vol. XIV. (1917), pp. 653-60. See also *On Religious Values: a Rejoinder*, this JOURNAL, Vol. XV. (1918), pp. 488-99.

⁴ *The Biological Value of Religious Belief*, *American Journal of Psychology*, Vol. XXIX. (1918), pp. 383-92.

⁵ *Loc. cit.*, pp. 514, 15.

physical aspect is part and parcel of the animal kingdom, James extended Darwinian principles to the human mind, showing how mental processes can be understood, so far as their origin and their present operation are concerned, only when placed against an evolutionary background in which natural selection of useful variations has been a *vera causa* in the mind's development. Present-day behaviorism is one of the consistent conclusions of the biological trend in psychology which was given so strong an impetus by the publication of James's *Principles of Psychology* and other psychological treatises. It has been a short step from James's *The Child as a Behaving Organism*,⁶ for example, to Professor Watson's *Behavior*.

Many of James's later philosophical views consist fundamentally of an extension of Darwinian principles from psychology to the larger problems of philosophy; and Dr. Schiller's *Axioms as Postulates*,⁷ and some of his other writings, show as vividly as anything in the literature of pragmatism the biological point of view in relation to philosophical questions. But whereas Dr. Schiller represents a development of pragmatism in a direction that warrants Professor Perry's criticism of it as a case of "vicious subjectivism,"⁸ behaviorism may be shown to be a more logical development of James's views. So long as the mental life is regarded as somehow subjective in the literal sense of the term, a completely biological treatment of the mind is impossible. When, on the other hand, consciousness and behavior are identified, as in Professor Holt's view⁹ for example, so that to be conscious means to respond specifically to an object as the result of external stimulation, while the content of consciousness becomes the external object responded to, it becomes easy to be thorough-going in a biological account of mental life. The consciousness of man, no less than that of the amœba, may be treated objectively, in terms of stimulus and response. Mental variations that have proved useful in the struggle for existence, and that have been preserved through the operation of natural selection, are simply, in their physical context,¹⁰ useful modes of behavior.

For behaviorism, beliefs are not subjective entities, but objective processes. A belief is an organic response. The physical presupposition of belief is a system of reflex arcs so integrated that some given assertion or proposition may be responded to positively. A

⁶ This is contained in the volume, *Talks to Teachers*, Ch. III.

⁷ Published as Ch. II. of *Personal Idealism*, edited by H. Sturt.

⁸ Cf. R. B. Perry, *Present Philosophical Tendencies*, pp. 216-217.

⁹ Cf. E. B. Holt, *The Freudian Wish*, especially the supplement, *Response and Cognition*; also *The Concept of Consciousness*.

¹⁰ See James, *Essays in Radical Empiricism*, Chs. I. and II., for an unsurpassed discussion of the distinction between the mental and the physical.

belief is an acceptance or an affirmation of a proposition, and may be either an actual response, or, in the absence of the proper stimulus, a mere organic set or disposition. Thinking, likewise, which is one of the means by which beliefs are arrived at, is not an ethereal process occurring in a vacuum, but is a process consisting of responses of the animal type. Professor Watson has discussed the thinking process in terms of implicit behavior in which incipient responses of the tongue and vocal organs play a prominent part.¹¹ Professor Thorndike has given a more extended account than Professor Watson's of the higher thought processes in terms of behavior.¹² Professor Dewey has analyzed the complete act of thought¹³ into responses which he calls, not "automatic routine habits," but "habits or reflective consideration."¹⁴ Thinking, according to Professor Dewey's analysis, consists of locating and defining a recognized difficulty, suggesting a possible solution, finding the implications of the suggested solution, and testing this possible solution, or hypothesis, through observation of the facts. These operations are all habitual responses no different in kind from the simpler animal responses. They are perfectly definite and objective, and may be treated wholly in behavioristic terms.

Belief, as I have said, consists either of an actual response or of an organic set. Belief is a positive set or response, as, for example, the belief in the Copernican theory, which manifests itself in an acceptance of the proposition asserting the theory in question. Disbelief is a negative response, a rejection. Doubt is an unstable reaction, not definitely positive or negative. A proposition, on the other hand, is not a response. It is, first of all, a group of words, which, as words, are marks on paper or sounds in the air. Words have meaning, however, which can ultimately be stated, perhaps, only in terms of universals. However this may be, a proposition, in the first place, is not psychological subject matter; and secondly, it is of propositions that truth and falsity are properly predicable. We are justified by common usage, nevertheless, in speaking of true and false beliefs. A true belief is really a positive reaction to a true proposition. A false belief is primarily a positive reaction to a false proposition, though a negative response to a true proposition would be the equivalent of a false belief.

¹¹ J. B. Watson, *Behavior*, pp. 18, 19, 324-28.

¹² E. L. Thorndike, *Educational Psychology*, Vol. II.; *The Psychology of Learning*, Ch. IV., especially pp. 46, 47.

¹³ John Dewey, *How We Think*, Ch. VI.

¹⁴ Cf. John Dewey, *Public Education on Trial*, *New Republic*, December 29, 1917, p. 246.

So far as questions of positivity and negativity in the behavioristic sense, and truth and falsity in the logical sense, are concerned, "belief" and "judgment" are practically interchangeable. Belief is a more sustained response, or a more permanent organic set, than judgment, but for most purposes we may use the terms interchangeably without serious error.

II

After these preliminary statements, showing the point of view from which I wish to look upon the question of belief, I am able to pass directly to a consideration of the biological grounds of some of the actual beliefs that have been held in the course of history, and that are held at the present time. I have in mind especially beliefs of a more or less philosophical and religious nature, for such beliefs have been biologically conditioned in numerous important and interesting ways.

The student of such a problem will do well to keep his own philosophic beliefs in the background as much as possible. An impartial observation of just what actual beliefs have been held is what is desired, not a criticism of these beliefs because of their possible falsity. Plato's definition of the philosopher as "the spectator of all time and all existence," the observer who is himself detached from the processes he is observing, is applicable in part to the behaviorist, whether he is studying animal behavior, the simpler human mental processes, or the more complex intellectual processes of man.

The scientific attitude is one of impartial observation of facts, whether the facts are agreeable or not to the observer; and the behaviorist attempts, first of all, to make the study of the mind scientific. The scientist, through the development of a rigid experimental method, seeks to rule out "subjective"¹⁵ preferences and to be guided by the facts as the sole test of truth. As Mr. Russell has well expressed it, "The scientific attitude of mind involves a sweeping away of all other desires in the interests of the desire to know—it involves suppression of hopes and fears, loves and hates, and the whole subjective emotional life."¹⁶

Very few persons, however, ever develop the scientific attitude in its full purity. People in general are unconsciously influenced in their decisions and beliefs by their likes and dislikes, by their "subjective emotional life." James has given classic expression to

¹⁵ The term "subjective" has a legitimate use and meaning for the behaviorist. The behaviorist should enclose the word in quotation marks, however, to indicate that he is using it in the behavioristic sense, as referring to one phase of the objective mental processes.

¹⁶ Bertrand Russell, *Mysticism and Logic*, p. 44.

this truth in his *Will to Believe*. He has asserted¹⁷ that man's pas-sional nature decides for him doubtful questions that bear intimately on his life. He has maintained that, even though naturalism were the true theory of things, "theism, whatever its objective warrant, would . . . be seen to have a subjective anchorage in its congruity with our natures . . . ; and, however it may fare with its truth, to derive from this subjective adequacy the strongest possible guar-anty of its permanence."¹⁸ "Materialism and agnosticism," he has said, "even were they true, could never gain universal and popular acceptance."¹⁹ Not only popular beliefs, moreover, but also the views of philosophers, are in many instances determined by the "will to believe." The impersonal mathematical and laboratory methods of science can not easily be applied to the solution of the issue between idealism and naturalism, for example; and undoubt-edly his inherited or acquired emotional attitude towards life has been the deciding factor in the trend of thought of many a philoso-pher. That the judgment of the average man, untrained in the nice-ties of scientific method, is influenced by desires and aversions, is so obvious that it needs only to be stated to be admitted; while James has maintained of philosophers that temperament really determines the acceptance or rejection of philosophic systems. Bradley has said similarly that the efforts of philosophers have been exerted for the purpose of finding reasons to justify what is believed in-stinctively.

The biological foundations of belief may be exhibited in two ways. In the first place, it may be shown in what manner some of the human instincts, which are the basis of man's emotions and de-sires; actually determine his beliefs. Since the instincts exist as one outcome of the biological struggle for life, so far as beliefs rest upon instincts they rest upon biological foundations. In the second place, attention may be called to the direct survival-value that beliefs pos-sess through their "subjective" effects upon the physical economy of life.

How the instincts influence belief may be illustrated by refer-ence to the instincts that form the "subjective" support of religious belief. The biological basis of religious belief is similar to that of a wide variety of other beliefs. I shall draw principally upon Mr. McDougall's admirable study of the human instincts.²⁰ Mr. Mc-Dougall's classification of the instincts is somewhat artificial and

¹⁷ *The Will to Believe*, p. 11.

¹⁸ *Ibid.*, p. 116.

¹⁹ *Ibid.*, p. 126.

²⁰ William McDougall, *Social Psychology*.

arbitrary. Man's nature resists any such precise analysis as he has made. His general attitude towards human behavior, however, is above criticism; and we can fall into no very serious error if we accept, for practical purposes, his list of instincts and emotions.

Mr. McDougall expresses accurately the attitude that we should take in examining the biological grounds of belief, when he says: "Mankind is only a little bit reasonable and to a great extent very unintelligently moved in quite unreasonable ways."²¹ "The truth is that men are moved by a variety of impulses whose nature has been determined through long ages of the evolutionary process without reference to the life of men in civilized societies."²²

It is impossible to maintain successfully that there is a religious instinct. Nevertheless, man's religious beliefs rest, as a general rule, upon several instincts as their necessary support. Mr. McDougall analyzes the emotional components of the religious life²³ into three complex emotions, admiration, awe, and reverence. These complex emotions, in turn, he analyzes into simple emotions, each of which is associated with one of the primary instincts. Thus he says that admiration consists of wonder and negative self-feeling, awe consists of admiration and fear, and reverence consists of awe together with the tender emotion. The simple emotions, then, which in combination are at the basis of the religious life, are: wonder, negative self-feeling, fear, and the tender emotion. Each of these simple emotions coexists with one of the following primary instincts, in the order given: curiosity, self-abasement, flight, and the parental instinct.²⁴ Even though we should not accept all the details of Mr. McDougall's rather too neat and well-ordered classification of the instincts and emotions, still we can not doubt the connection between emotions and instincts, and we can not doubt that these four instincts, and probably others, form an indispensable basis for religious belief. The possession of these instincts and emotions does not in itself constitute a man's religion. A man is not religious unless he also has a belief as to the reality of some more or less supernatural object or objects about which these instincts are united into a religious complex. But, without such instincts as driving forces in human life, religious belief would not exist among men.

Mr. McDougall's discussion of the instinctive basis of religion might well be supplemented by a greater emphasis than he places upon the instinct (or sentiment) of love in the economy of the re-

²¹ *Ibid.*, p. 11.

²² *Ibid.*, p. 10.

²³ *Ibid.*, Ch. xiii.

²⁴ *Cf. Ibid.*, Ch. iii.

ligious life. Freudian psychology explains religion as a sublimation of the sex instinct. Human love, when denied its normal human satisfaction, or else passing beyond such satisfaction, seeks and finds compensation in a religious world of the imagination (believed real, of course), a world the existence of which depends solely upon the creative power of human love. Perhaps the Freudian view seems crude and ultra-prosaic, but Freud has simply expressed in plain words what poets and philosophers have long recognized. Plato has described the truly religious love of eternal goodness and beauty as a growth out of ordinary human love.²⁵ Emerson has expressed a similar thought in reverse form in saying, "Love . . . is the deification of persons."²⁶ And Browning, most emphatically of all poets, makes human love and religion closely akin. It is a common observation that people often become religious under either one of the two following conditions. Those whose earthly love has been thwarted may turn to the religious life for its transcendent compensations. The classic case is that of the woman who withdraws from the world into a nunnery because of a disappointment in love. On the other hand, many who were not previously religious become so upon "falling in love." Then, as Emerson says, "Nature grows conscious," and the attitude of the lover towards the universe at large becomes truly religious. Even definite religious beliefs may now be adopted wholly as a result of love, which, in its origin and evolution, has been of such profound biological significance.

The instinctive basis of religious belief is simply illustrative of the biological basis of many of man's more spontaneous opinions and beliefs—the ones least subject to exact scientific verification or refutation. The conditions of man's age-long precivilized and even pre-human life, during which the primitive instincts arose and developed, probably as chance variations or mutations preserved by natural selection, or perhaps as racial habits becoming hereditary, account for the existence and permanence of many present-day beliefs.

The further fact of the direct survival-value of certain beliefs, which renders them permanent in human life, whatever may be the source from which they arise, whether it is instinctive or purely a matter of chance, has already been pointed out in other connections. Dr. Schiller's study of *Axioms as Postulates*²⁷ is a striking illustration of a biological explanation of the rise and survival of principles that have come to seem self-evident and without need of historical origin. James has spoken of the categories of our common-sense

²⁵ See *The Symposium*.

²⁶ *Essay, Love*.

²⁷ *Loc. cit.*

ways of thinking as the discoveries of "prehistoric geniuses whose names the night of antiquity has covered up," and he has given a biological explanation of the survival of these categories. Dr. Schiller has recently pointed out that the acceptance of this life as real and not a dream, the rejection of solipsism, and the denial of pessimism, all rest upon biological foundations.²⁸ In a similar manner I have discussed what I have called the (1) hygienic, (2) moral, (3) industrial, (4) scientific, (5) artistic, (6) social, and (7) legal values of primitive religious beliefs, and the (1) hygienic and (2) moral values of religious beliefs in the higher religions.²⁹ These values have all been of a fundamentally biological type.

III

Though, in the matter of explaining the genesis and the present basis of significant beliefs, especially religious beliefs, I am in precise agreement with the biological treatment accorded to the problem by such pragmatists as James and Dr. Schiller, there arise, nevertheless, differences of view that appear so striking as to have caused Dr. Schiller to single me out³⁰ as representing in my own errors two fallacies "to which all logic has habitually been addicted."³¹ Both of these fallacies attributed to me, called the *Fallacy of Ex Post Facto Wisdom* and the *Fallacy of Confounding the Persons*, have to do with the question of the relation between truth and value, especially survival-value. What I have called the "pragmatic fallacy"³² is involved in the argument. In my original definition of this fallacy I insisted that truth was a logical matter unrelated to the question of value, and that the pragmatic fallacy consisted of taking value, especially survival-value, as a test of the truth of beliefs. Dr. Schiller, on the other hand, like James in the later developments of his pragmatic views, asserts that, even though truth and survival-value are not identical, "it might become necessary to equate [them] in principle."³³

The whole question, in the last analysis, reduces largely, if not wholly, to a question of verbal usage—a question as to the application of the word "truth." I accept without reserve Dr. Schiller's account of the biological grounds of belief. I would agree that "it is even possible that ultimately and indirectly all [beliefs, though

²⁸ *Truth and Survival-Value*, loc. cit.

²⁹ *The Biological Value of Religious Belief*, loc. cit.

³⁰ This JOURNAL, Vol. XV., pp. 508-10.

³¹ *Ibid.*, p. 508. See also p. 509, where the second fallacy named by Dr. Schiller is spoken of as "very common in the traditional logic."

³² This JOURNAL, Vol. XIV., pp. 653-60; Vol. XV., pp. 488-99.

³³ *Loc. cit.*, p. 514.

not all 'truth-values'] are affected by the survival-value test."³⁴ But I would assert that one goes contrary to established usage of the term "truth" if one asserts that the truth of beliefs is tested by their survival-value. In regard to the biological impossibility of pessimism as a permanent creed, I have expressed views,³⁵ independently of Dr. Schiller's recent account of this matter, as I have already remarked, that agree precisely with Dr. Schiller's account. That is, I have maintained that it is biologically impossible that pessimistic beliefs should survive in the race, since, for biological reasons, a pessimistic race would soon perish from the earth. But, so far as pessimism is conditioned by some disillusioning naturalistic type of philosophy, scientists and philosophers might agree that such a philosophy is true even though its acceptance were psychologically and biologically impossible for any very considerable number of people. Common sense and science assert that "truth is so," whether or not it is known by any human mind. On the other hand, pragmatism of Dr. Schiller's type asserts that truth is personal and subject to psychological and biological conditions. I would myself try to mediate between these two contrary positions. I would say that common sense and science are correct so far as the meaning of the term "truth" is concerned, for, indeed, common sense and scientific usage together determine the meaning of any term. I would also say that pragmatism is correct so far as its account of the genesis and growth of beliefs in a fundamentally biological context is concerned. But even beliefs that are universally grounded in biological needs of human nature need not thereby be true. They are believed true, of course, for to hold a belief implies believing that the first belief is true; but beliefs which were universally held might fail to satisfy the scientific test of truth if sufficiently accurate methods of scientific verification were devised.

It was recognized by Aristotle that convention establishes the meaning and denotation of words, but philosophers, more than any other class of men, have persistently erred in insisting that a given word means this or that, without asking the simple, concrete question of just what, in actual human usage, the word does mean. We may illustrate the part that human usage plays in establishing the denotation and the meaning of words by referring to the original fixing of names to objects in the growth of language, speaking, for the sake of concreteness, in terms of an incident recorded in Hebrew mythology. When Adam confronted an animal kingdom of unnamed species, the cat became a cat when he called it a cat, and in

³⁴ Schiller, *loc. cit.*, p. 514.

³⁵ *American Journal of Psychology*, Vol. XXIX., pp. 383-92.

like manner the dog became a dog. "Whatsoever Adam called every living creature, that was the name thereof." Adam did not create the animals, but he did create their names, together with the relations of reference that were involved. Adam did not judge that this animal was a cat, that, a dog, for there was no chance of his being in error. The names of the animals were a function, not of Adam's judgments, but of his acts of postulations. That is, Adam created the symbols (the names of the animals) and arbitrarily determined what the symbols should denote. I have spoken figuratively; but for Adam substitute the whole human community, for the animal kingdom substitute the entire world of objects, and the situation is not altered except in the extent of application of the principles involved.

The question of the meaning of "truth" becomes first of all the empirical task of asking just what, in popular and in scientific usage, the word is used to refer to. I submit that, in popular or common-sense usage, "truth" is thought to mean simply what is "so;" and in scientific usage, it is taken as predicable of theories, hypotheses, propositions, and assertions that conform, in a definitely recognized scientific manner, to the facts of the situations in question. Furthermore, in both popular and scientific usage, the truth is taken to be entirely independent of what anyone may *like* to believe, or of what anyone may be led to believe for "subjective" reasons. In other words, truth is depersonalized in popular and in scientific usage; truth is a logical matter and not a psychological matter.

That the unsophisticated mind thinks of truth in such impersonal and immutable terms is illustrated by the first popular response to the pragmatic theory of truth when interpreted as offering an excuse for lying.³⁶ Though pragmatism asserted that the valuable in thought and belief is the true, still the popular mind, more upright, perhaps, than the mind of the pragmatist after it had become all sicklied o'er with the pale cast of Protagorean sophistries, refused to give up its respect for genuine truth. An austere respect for truth as something independent of all personal relations to it, is well expressed by the poet when he stoically asserts,

"It fortifies my soul to know
That, though I perish, truth is so."

The scientific ideal of depersonalized truth is well expressed in the passage quoted above from Mr. Russell. Scientists endeavor to establish laws and theories which the objective facts, and the facts alone, will substantiate. Sciences succeed so far, as they become

³⁶ Cf. Schiller, *loc. cit.*, p. 510.

mathematical and experimental. Personal relations of the experimenter to the processes which he is studying are not allowed to prejudice conclusions or to decide issues if it is possible to avoid such vicious influences.

One of the chief differences between the pragmatic usage of "truth" and the scientific usage of the term is presented in the example, cited by James, of the Ptolemaic *versus* the Copernican theory in astronomy. Pragmatism claims that truth is personal, and fundamentally an attribute or predicate of beliefs as psychological processes. What is believed to be true, and proves serviceable for definite reasons, is declared by the pragmatist to be true. Therefore the pragmatist asserts that the Ptolemaic theory was actually true so long as it was believed true, since the belief proved serviceable in various ways. On the other hand, those not pragmatists would say that the Ptolemaic theory never was true, since it never accurately represented the facts of the case, as has since been proved. Scientists would assert, further, only that the Copernican theory is *probably* true. It *seems* to represent the facts accurately. But, they will say, whether it is really true or not depends, not upon the mere serviceability of the belief, but upon its conformity to the facts. Perhaps, scientists would admit, no theory can ever be shown absolutely to be true, since the establishing of its truth is a human and therefore an imperfect process. Scientists will insist, however, that the truth of a theory, *if it could be known absolutely*, would be found to depend entirely upon its impersonal relations to objective facts.

Though the later developments of James's pragmatism largely obliterated the distinction between truth and value, especially survival-value, James had the scientific theory of truth still in mind when he wrote, in one of his earlier works,³⁷ "Theism, whatever its objective warrant, would thus be seen to have a subjective anchorage in its congruity with our nature as thinkers; and, *however it may fare with its truth*, to derive from this subjective adequacy the strongest possible guaranty of its permanence." Thus, according to James, though naturalism might be the *true* philosophy, in the sense of being the one that describes the facts of the universe correctly, idealistic and theistic beliefs would probably persist permanently in the minds of men because man's emotional needs determine so largely what he believes. The pragmatist would here assert that theism is true because the belief persists and "works;" but those with a non-pragmatic theory of truth would still maintain that, in the universe of discourse in question, naturalism would be

³⁷ *The Will to Believe*, p. 116. Italics not in the original.

true, even though theistic beliefs persisted and were valuable, biologically and otherwise.

In his controversy with Professor Perry, not so very long ago,³⁸ Dr. Schiller described the pragmatic theory of the meaning of truth by means of a concrete illustration. Speaking of the World War, Dr. Schiller said: "What would happen if the victors prevailed so utterly as to establish their version of the truth? Would not the divergent accounts be voted down as false? According to Professor Perry some of these deserve to be called truer, but is it not amazing that he should regard the situation as not in the least derogating from 'the theoretic truth' of the beliefs that are rejected."³⁹

On the contrary, it seems to most of us, I think I may safely say, that it would be more amazing if military victories should *always* be on the side of the truth. "Divergent accounts would be voted down as false," because they would be voted down by the victors, but is the cause that lacks military support necessarily false? Germany might conceivably have prevailed over the Allies, but would even Dr. Schiller ever have accepted as true the views for which Germany has stood? We are easily led to think that right and truth have always been on the winning side throughout military history, but one reason for thinking so may be the fact that those groups which have been victors by force of arms have been the survivors and consequently the final judges of the right and truth of the issues involved. The biological struggle for existence is the most fundamental factor in determining what social, political, and religious beliefs shall survive and be held as true, but it does not give assurance of the truth of these beliefs.

So long as one maintains the distinction which I have made between beliefs and disbeliefs as properly to be regarded as positive and negative responses to propositions, the propositions being non-psychological, and true or false according to their relations to facts external to them, there can be no possibility of committing the pragmatic fallacy. By courtesy, as I have said, we may speak of true and false beliefs and judgments, for usage justifies this; but fundamentally truth is a logical matter in which only propositions, theories, hypotheses, *etc.*, are involved, while the finding of these propositions, or the attempt to find them, and to verify them, is wholly a psychological matter, of which truth and falsity may not properly be predicated. This distinction between logical and non-logical matters, between propositions and beliefs, allows for a clear-cut distinc-

³⁸ Cf. *Mind*, N. S., Vol. XXIII. (1914), pp. 386-95; Vol. XXIV. (1915), pp. 240-49; pp. 516-24.

³⁹ *Mind*, N. S., Vol. XXIV., p. 522.

tion between the value of beliefs "subjectively" considered, and the truth of propositions objectively considered; and it conforms both to popular and to scientific usage of the word "truth."

Furthermore, so far as this distinction is made, the two fallacies which Dr. Schiller ascribes to me are seen to be inapplicable to my statements. The *Fallacy of Ex Post Facto Wisdom*, relating to "wisdom after the event," as, for example, in the case of the Ptolemaic and Copernican theories, is clearly no fallacy in the reasoning of one who separates the earlier *belief* in the Ptolemaic theory from the non-psychological aspects of the theory, and who separates the present *belief* in the Copernican theory from its logical aspects, and simply contends that the Ptolemaic theory was false, even though believed, just as the Copernican theory might now be false, even though believed. I have simply asserted that some false beliefs have had valuable "subjective" effects, in the case, for example, of religious beliefs in the course of human evolution; and in asserting this I have committed no *Fallacy of Ex Post Facto Wisdom*.

The *Fallacy of Confounding the Persons*, again, can be asserted only of those who predicate truth and falsity of psychological processes. Both popular and scientific usage, to which I have tried to conform so far as the meaning of the term "truth" is concerned, depersonalize truth; and usage of the terms as well as the facts of the situation allow one to assert of belief that a false belief, that is, an acceptance of a false proposition, may have value in case the believer is unaware of his error, because of the "subjective" effect of the belief upon the believer. For example, the belief in God might contribute to a man's happiness and morality, even though there were no God.

Finally, the pragmatic fallacy is still a genuine fallacy, committed by those who maintain that the emotional effect of a belief upon an individual, or the biological effect of a belief upon a race, is a criterion of the truth of the proposition believed.

I agree with the pragmatic description of the biological grounds of belief, but I contend that beliefs need not always be true in order to be valuable. As Mr. Rashdall has so well expressed it, "Error and delusion may be valuable elements in evolution;—to a certain extent . . . they have actually been so."⁴⁰ To say, on the other hand, that beliefs, because valuable, can not be errors or delusions, but must be true, is to commit the pragmatic fallacy.

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⁴⁰ Hastings Rashdall, *The Theory of Good and Evil*, pp. 209, 10.

TESHLATIWA AT ZUÑI

ON a recent visit to Zuñi I noticed that my interpreter, a man of twenty-three or four, frequently sat with his right arm across his body, the hand under his coat. In this posture, his attention now and again would wander, and his look was uncertain if not troubled. "Do you know about *teshlatiwa*?" he began one day a surprising confidence. "No, what is it?" "It is scaredness, it is being scared. You feel it in your heart, and you feel as if ants were crawling under your skin."

David went on to tell how *teshlatiwa* came from looking on the dead. The Zuñi cemetery is literally God's acre and to secure a new grave old bones must be disturbed. The sight of such mortuary remains might give *teshlatiwa* to the grave diggers. The sight of the corpse they were to bury might also give *teshlatiwa*. As a prophylactic, bits of the personal possessions of the deceased would be burned and the smoke inhaled by the four men who had served as pall bearers and as grave diggers—an instance of the practise of inoculative magic not uncommon at Zuñi.¹

"Americans" do not have *teshlatiwa* because the graves they dig are fresh. David wondered why he himself had *teshlatiwa*. He had never dug a grave. To be sure when he was at school at Albuquerque, several years before, a schoolmate had died and he had seen the corpse. That must have been the origin of his *teshlatiwa*. He could think of nothing else.

Very recently, David said, his *teshlatiwa* had been increased. He was sitting that night with some other boys when suddenly one of them, a stranger to him, had an epileptic fit, and "then he was dead." (Unconsciousness is thus described at Zuñi.) After a while, "he was alive." "Now I will get more *teshlatiwa*," David had said to the other boys.

The other boys had been frightened, too, when they had seen the epileptic for the first time in a fit, but *teshlatiwa* did not result. David had a brother who had had *teshlatiwa*. "They [medicine-men of one of the curing orders no doubt] cut him in different places with glass and let out the bad blood, then he was well again."

Knowing that David was shortly to take part in one of the ceremonial dances, physically exacting dances, and thinking he might

¹ Parsons, Elsie Clews, "Zuñi Inoculative Magic," *Science*, N. S., XLIV. (1916), 470. In the circumstance under discussion a lock of the hair of the deceased was said to be burned.

have some heart ailment,² I urged a visit to the "American" doctor. It was quite evident that the visit would not be paid. Nor did David seem to consider a native cure. Seeing him sitting with his hand pressed to his heart, a friend had said to him, "Have you *teshlatiwa*? You are too young. Only the old have it." To the old it brings pain. "And when I get old I will have pain too," commented David.

Teshlatiwa, as a phenomenon of depression, is of interest to the psychologist. As a state of mind expressed in a funerary practise it has interest, too, for the ethnologist. For the student of Southwest culture in particular who recalls that the culturally-related neighbors of the Pueblo Indians, the Navaho, desert the camp in which a death occurs, the *teshlatiwa* of the Zuñi has peculiar interest. As I once heard Professor Kroeber query, did the town dwellers come to suppress their fear of the dead in realization of the advantages of a settled life, or having less fear of the dead than their migratory neighbors did they more readily take to house-building? Or, shall we say, the charm of the sedentary appealing, was fear of the dead, not suppressed, but forced to take other expression,³ expression such as I have endeavored to describe through the experience of one individual and expression in funerary practises, in the practise cited as well as in other less obviously explicable practises?⁴

We might even stray into Freudian speculations and suggest that the Pueblo Indian cult of the dead as bringers of rain and good crops was due, *in part*, from the psychological point of view, not only to the desire for food but to the desire to overcome fear of the dead, an effort, so to speak, to rationalize desire, a suppression mechanism, myth and ritual being not only a wish fulfilment but a justification against fear. Curiously enough, from the cultural or historical point of view, the *katsena-kachina-koko* cult, in its elaborate development at least, appears to be a comparatively latter day cult and more or less synchronous with the increase in permanency of village sites shown by the Pueblo Indians in the last few centuries.

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² Subsequently it became clear that *teshlatiwa* or *teshlati 'iwolpa* (seared goes under, inside) is to be more or less identified with the several baffling ailments we call rheumatism.

³ However, fear of the dead in very simple form is also felt. A witch may plant a prayer-stick for a deceased member of a hated family and ask the deceased to draw to himself a given member of the family. Only a careless mother would leave her infant alone lest a family ghost come and hold it. As a result of such ghostly attention within four days the child would be dead.

⁴ Cf. Parsons, Elsie Clews, "A Few Zuñi Death Beliefs and Practises." *American Anthropologist*, XVIII. (1916), 245-256.

REVIEWS AND ABSTRACTS OF LITERATURE

The Philosophy of Benedetto Croce. H. WILDON CARR. London and New York: Macmillan and Co. 1917.

Prior to 1914 I should have read this book with pleasure though with vigorous dissent. Since we have seen the fruits of certain German philosophies, a new sense of responsibility has made itself felt. With an almost comic surprise, philosophers have come to realize that their utterances are not mere intellectual babblings and may be fraught with dire consequences. A philosophy carries with it an attitude toward life, an attitude that must be taken seriously, for its consequences may be serious. The philosophy of Croce seems to me to bear a grave menace. If fundamental facts would justify no other interpretation, we should have to put up with it. But even where the facts can not be questioned, they can be thrown into a different perspective, used differently with a far healthier result.

There are other undesirable philosophies besides those of war and power. There is a philosophic way, subtle, slow, but sure of undermining character and intellectual integrity. Obscurantism, intuitionism, and the cult of feeling are the friends of spiritual anarchy; perhaps a worse foe than the will to power. These things I find in Croce. Mr. Irving Babbitt ought to understand this reaction, for his New Laocoon senses so keenly the danger to art in such philosophizing. I only wish he had seen more clearly the danger to civilization that is fostered by the art theories he condemns. He has his gaze fixed on a symptom of a modern ailment, but neglects the disease in correcting the symptom. In a healthy society such art as he condemns could not flourish and a philosophy like Croce's could not flourish.

If we are to have a world that is a suitable place for human beings to live in, there are four mental traits we must cultivate: clarity in thinking, intelligent direction of instinct, creative endeavor subject to experimental confirmation, and moral zeal to which hedonism is irrelevant. Croce, explicitly or implicitly, offends at each point. Let me illustrate.

"Philosophy studies reality in its concreteness; physical science studies reality in its abstractness" (p. 24). Philosophy and science "stand to one another in the wholly unique relation that for philosophy, reality or mind is concrete, the whole; for science, reality or nature is abstract, a partial aspect. Philosophy is therefore the Science of Sciences" (p. 28). It is true that philosophy and science deal with the same world. I should say that prediction and control are made possible by science and directed in application by philos-

ophy. But if the concreteness of philosophy is contrasted with the abstractness of science, as being knowledge of the whole as over against knowledge of the partial, the concreteness of the philosopher is a petty thing. I suspect it would be safe to challenge any philosopher to utter a word, or word combination, denoting any characteristic of this concreteness. If philosophers really confined themselves to discussing the world as a whole, philosophic literature would be much reduced in quantity. I can not recall one who has ever done so among the many who have expressed this intention. The last sentence quoted is a riot of obscurantism. To paraphrase: The study of the concrete whole (philosophy) is the study of the abstract (science) of abstractions (sciences). In spite of Mr. Carr's elaborations, I do not believe such thinking can ever attain the virtue of clarity.

We still have our intuitions. "The intuition is the undifferentiated unity of the perception of the real and of the simple image of the possible. In intuition we do not oppose ourselves as empirical beings to the external reality, but objectify without addition our impressions such as they are" (*Esthetica*, p. 6); (p. 62) "Intuition is . . . mental creation. Intuitions are the matter of concepts. . . . If knowing is not making or remaking what the mind itself has produced, are we not turning to dualism, to the thing confronting the thinker, with all the absurdities dualism involves?" (pp. 80-81). Intuition is the fundamental mental fact, more fundamental than intelligence. We find this again and again. If it were true that dualism were the only alternative to this theory of knowledge, I am not sure but that it would not be more healthy minded. I know that a horse has four legs, but to describe the process involved as making or remaking something my mind has itself produced is a task fit only for the class-room lecturer marking time. I am afraid of intuition. The term is always changing its meaning, even with as able a thinker as Croce. It always gives excuse for taking refuge in instinct and relaxing the effort to be intelligent.

Intuition is here called creation, but "the individual mind . . . carries along with it, in its esthetical and logical inventiveness, a past which is itself determined in the present and which is also itself eternally determining the present. The reality, therefore, which confronts the individual mind is history, and with history the individual mind is identical" (p. 18). In so far as this means that the human mind is a product of evolution and that it bears in itself the marks of the experience through which the individual and the race have passed, it is true enough, but to continue that "the reality, therefore, which confronts the human mind is history, and with history the human mind is identical" is pernicious obscurantism and false.

The reality which confronts us is present fact, which of course has a history, and almost more, an anticipated future. If history is merely a name for process, or for a Bergsonian *élan vitale*, we have here an hypostatized abstraction, substituted for the actual processes of evolution. Nor can the mind be identified with history, even in this sense, any more than can a frog with the pool in which he swam as a tadpole. There is no hint here of the specific creative processes by which man may advance his mastery over life. The emphasis on history makes implicitly denied what is explicitly claimed, human creativeness.

This philosophy is laid out on the dichotomy of knowing and doing. These in turn are subdivided. Knowing gives us intuition, individual, the immediate expression of the image, and the concept in which the image is universalized; doing gives us action as of immediate utility to the individual, economic, and action as universal, ethical. Pleasure is the positive expression of economic activity, pain its negation. "As, then, it is the positive economic activity on which ethical activity depends, for only the positive is (!), and as the positive expression of ethical activity is duty, there can never be an opposition between pleasure and duty; the two terms must coincide. 'When we speak of a good action accompanied by pain our words are a contradiction, or, rather, we are using a mode of expression which can not be meant literally. A good action, in so far as it is good, always brings satisfaction and pleasure. If it be accompanied by pain it can only be that the good action is not yet wholly good, either because, besides the moral action, which itself is pleasing, there is a new practical problem yet unsolved and therefore painful' (*Practica*, p. 248)." I am frankly tired of efforts to make some sort of synthesis between the good and the pleasant. Many a woman has sent her husband or sons to the war because she felt the moral need of victory. She may be proud of them, approve their sacrifice or her own. Such an act is intensely moral, but it is accompanied by at least as much pain as pleasure. I know the situation can be juggled into the language of hedonism in terms of satisfaction and "unsolved practical problems," but I think in so doing it is thrown out of true perspective. My point is that to consider the question of pleasure-pain in such situations is to bring in psychological by-products that are dangerously confusing. The real aim of morality is a better integrated individual and social life.¹ If the psychologist can assert that this will result in happier living, well and good, but the thing for the individual to keep before him in moral striving is factual change in character, for the individual, and in human relations, for society; that is, factual consequences

¹ Cf. Holt, *The Freudian Wish and Its Place in Ethics*.

with respect to integration. If pleasure is to be added, it is more likely to appear in a future generation than in the present moral individual. As a matter of observation, I am convinced that to take hedonism seriously as a philosophy, does not produce even the morality that a hedonist can approve.

To be just to Croce, let me add that he often exhibits the manly heart which, according to Freitag, insures a satisfactory denouement to the drama. There is a good ring in the following: "A knowledge which did not serve life would be superfluous and, like every superfluity, scrapped. . . . Knowledge serves life and life serves knowledge. The contemplative life, if it is not to become idle stupidity, must complete itself in the active, and the active life, if it is not to become irrational and sterile tumult, must complete itself in the contemplative. Reality in particularizing these attitudes has fashioned men of thought and men of action, or rather men in whom thought, and men in whom action, predominates. Neither is superior to the other for they are cooperators one with another (*Practica*, p. 207)" (pp. 109-110).

I have, of necessity, exhibited only fragments of this philosophy and can not take it amiss if any one applies to my comments Croce's own fine passage on life: "Life is composed of a fixed web, woven of ever varying actions, vast, small, and infinitesimal. No thought is skilful enough to carve that web in pieces, and reject some as less beautiful in order that in the chosen pieces alone, cut out and disconnected, it may contemplate the web, for it will no longer exist (*Practica*, p. 336)" (p. 118). I am not sure of the truth of the passage, but if true, it indicates the very reason I can not reconcile myself to Croce's philosophy, in spite of his moments of fine feeling set forth so admirably by Mr. Carr. As a whole, like his romantic expressionism in art, his philosophy seems to me an emotional debauch that must sap our clearness of vision, soften our firmness of purpose, and undermine our constructive energy. It encourages the undisciplined mind that prefers revolution to evolution. Hence its menace. To-day we need, not the "concreteness" of totalities, but the "abstractness" of analysis. Our flights must start from the solid earth, not swoop down from the clouds. Philosophy that does not rise in this humble way can only appeal when we are less serious minded. Fortunately there is much philosophy among us not in these straits.

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Christian Belief in God. GEORG WOBBERMIN. New Haven: Yale University Press. 1918. Pp. xvii + 175.

It is a pleasure to read a critical defense of Christianity which maintains throughout so high a level of tolerance and courtesy to

science and philosophy as does this little book by Dr. Wobbermin. The translation by Dr. Robinson has very evidently been carefully done, being, I judge, very exact and yet in excellent English. The Yale Press should come in for its share of commendation.

The argument of the book falls into five parts to which chapters are devoted. Chapter one summarizes the chief tendencies of present-day philosophy. Nietzsche comes in for his share of criticism, a point made much of in the advertisement. Those who have read Salter's *Nietzsche the Thinker* will be in a position to estimate the adequacy of this criticism. It is not unfair, and yet scarcely just. There are many good summaries of characteristic standpoints in comparatively recent German philosophy, but—and this is a very striking fact—William James is the only non-German mentioned. One is inclined to ask oneself whether this mention is due to the fact that Dr. Wobbermin is the translator of *Varieties of Religious Experience*.

The second chapter concerns itself with epistemology in its relation to the belief in God. Neo-Kantianism comes to the front immediately. Haeckel is rather smugly set aside as unlearned in epistemology. It results that the world of nature is in some sense phenomenal; just what degree of reality is given it I can not quite make out.

The third chapter deals with cosmology. An attempt is made to rehabilitate the cosmological proof for the existence of God. The argument is, not for a First Cause in the traditional sense, but for a prime orderer of the physical universe. An objective mathematical logic prevails in the world, and this order can not be accounted for by the *random* movements of atoms. Is this not the sort of argument presented by all anti-naturalists? But a multitude of assumptions is hidden in that term random. The conclusion Dr. Wobbermin draws is precise: "Strict atheism is philosophically meaningless and untenable. To-day the great majority of philosophers admit this."

The fourth chapter is in many ways the best, as it is the most detailed in its treatment of science. It is an effort to prove that the empirical teleology evident in the organic realm can not be accounted for adequately by Darwinism. Naturally he calls to his assistance the opinions of Driesch and Reinke. In details his treatment is perfectly fair, and yet there is present the belief that science isn't quite able to give all the factors of evolution. A divine teleology must be called in to supplement the forces discovered by science. The following quotation gives his approach quite fairly: "The Christian belief in God alone comprehends the riddle propounded by the theory of evolution—it does not solve, but it comprehends this riddle. For it is most especially under the conception

of evolution that the world of living things seems like a work of art, in comparison with which even the most elaborate human works of art are but very imperfect imitation." Like Balfour, he builds his theism upon the inadequacy of the *strict* mechanical view. But are there no other alternatives? Is there not creative synthesis of a natural sort resulting in new properties and modes of functioning? It seems to me that Dr. Wobbermin is just a little too blind to the new drifts in science and philosophy. But I doubt whether the protagonist of a fixed outlook could be any broader than he has been.

The last chapter is devoted to the interpretation of the above results in the light of Christian psychology. God is now conceived as a personal, ethical Being. Of interest is his effort to harmonize transcendence and immanence. It is rather vague to me and seems to boil down to this: God's will dominates the world and yet his personality is above the fret and worry of transient things. The rest of the chapter shows the influence of James.

The book is to be classed with Otto's *Naturalism and Religion*, whose influence it distinctly shows. Both are proper challenges to the philosophical naturalist.

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JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. November-December, 1918.
L'émotion musicale (pp. 353-369): H. BEAUNIS. — Reviews the factors that determine musical emotion, with especial emphasis on the importance of the tactile and organo-muscular sensations for the passionate effects of music. *Études sur la signification et la place de la Physique dans la philosophie de Platon (suite et fin)*: pp. 370-415): LÉON ROBIN. — The physical mechanism of Plato is not, like that of the Atomists, one that pretends to be self-sufficient and to afford a total explanation of that to which it applies. Platonic idealism is not static, but dynamic; there exists a superior intelligible mechanism, which is the movement of thought itself considered as absolute. Numbers and mathematical ideas are the intermediaries between the intelligible and the sensible mechanism. "The mechanism of Plato can be comprehended only by a dynamism, which is a dynamism of form." *La loi de l'oubli* (pp. 416-434): M. FOUQUAULT. The dependence of forgetting on time is expressed by a hyperbola, although the rate of forgetting is generally masked by a secondary fixating action of a rumination, mostly unconscious and involuntary. *Réflexions sur la Thermodynamique à propos d'un livre récent* (pp.

434-478) : LOUIS ROUGIER. — An exposition of the principles of M. L. Selme's book, *Principe de Carnot contre formule empirique de Clausius; essai sur la Thermodynamique*. According to the writer, if the author's views are confirmed, they will modify our notions of the degradation of energy, by showing that the principle of Carnot is indistinctly applicable to all forms of energy. *Notes et documents. La représentation libre et l'identité personnelle*: J. PÉRÈS. *Revue Critique*. H. Wildon Carr, *The Philosophy of Benedetto Croce. The Problem of Art and History*: G. L. DUPRAT. J. Ségon, *La guerre mondiale et la vie spirituelle*: LUCIEN ARRÉAT. *Revue des Périodiques. Necrology* (Edouard Abramowski).

Scott, J. W. *Syndicalism and Philosophical Realism: a Study in the Correlation of Contemporary Social Tendencies*. London: A. & C. Black, Ltd. Pp. 215. 10s. net.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held in London on March 17, 1919, Dr. G. E. Moore, president, in the chair. Mr. A. E. Heath read a paper on "The Scope of the Scientific Method," in which he said that though the scientist makes a conscious effort to avoid anthropocentric bias in his treatment of any field, this does not mean that he is confined to non-human fields. Ethical neutrality of method does not imply limitation to an ethically neutral subject-matter. Consequently it is held that the scientific method can be applied to any domain of experience. This thesis is supported by: (1) The claim that what is attempted is always the complete description, by both qualitative and quantitative formulæ, of an unanalyzed field of "primary fact." This is accomplished by the setting up of appropriate conceptual constructions by the two processes of abstraction and of generalization by analogy; the method being sterilized by constant reference back to primary fact. (2) It is then shown in detail that such synthetic ordering of a primary field is both possible and helpful in biology, political theory, history, and esthetics—though in the more concrete fields only qualitative treatment is as yet possible. (3) Finally it is contended that the business of philosophy is the analysis of the primary data accepted uncritically in each field. Its method is thus a "reverse scientific method." The one is ready to increase hypothetical entities for the purposes of economical description, according to Mach's principle; the other limits entities to those left after radical analysis, according to Ockham's principle of parsimony. And the two principles are not contradictory but complementary.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE VALUE OF FALSE PHILOSOPHIES

PHILOSOPHY may be bad because it is poor; again, it may be bad because it is false. Poor and feeble philosophy, like sweet flowers in decay, is ill-smelling stuff; we shall leave it alone. But there are false philosophies that are not poor and weak. Unless contradictory statements can both be true, this is a category which embraces close upon half the chief systems, or half the theses of all the chief systems. This fact has appeared, to many a critic of philosophy in general, a confession of the futility of the whole endeavor; and to many a well-wisher, a cause for lament over wasted effort and great minds gone astray.

There are those who demur and say there is no difficulty in the matter. Philosophy, they assert, is not to be judged by the standards of science. It is to be judged by the standards of art or of religion. It is to be judged by standards of power and inspiration. Its truth is one and identical with its potential influence over human life. Philosophy is a human attitude, and not a theory. But judged literally by such a standard as this, the truest because the most dynamic philosophy was the Mohammedan's blind trust in the inscrutable will of Allah, as being the one and only explanation for all things in heaven and earth. From the straits of Gibraltar to the straits of Singapore, from Zanzibar and the Niger to the steppes of Turkestan, weak in numbers but great in infatuation, the irresistible armies of that faith went sweeping abroad. Is it not true that the great dynamic ideas are generally false, with at least the falseness of onesidedness? For they must never be tainted by doubt; they must not be enfeebled by critical analysis. The power and inspiration that is unaccompanied by a more homely sort of trueness, is it not a dangerous thing, having in it the seeds of persecution and fanaticism? And as for philosophy, are not truth to the facts of this world, critical aloofness, adequacy to all the manifold phases of all the multitude of real things, its first ineludible requirements?

Nevertheless there does seem to be something about a great system of philosophy which, even though we confidently believe it not to be true, does make it, somehow or other, too much worth while to

allow us to reject it as foolishness and wasted energy. It is not merely that it is a great feat of the imagination. That, in full measure, it may indeed be, and receive admiration accordingly, as we might admire Dante's vision without believing his astronomy. But considered exclusively from this standpoint, even the great systems are less satisfying than the works of minor poets and second-rate novelists. A philosophy is at once so abstracted and so pretentious a thing, that seldom does it let you forget how pertinaciously it intends to be true of the world of fact. Explicitly it insists that this is really so, and that is really so. You can not luxuriate in its fairy-land, or forget that its dreams are dreams. You are forced, at every step, to compare it with what you believe to be actual, and though your belief may be itself mistaken, it certainly precludes all artistic illusion.

So philosophy is like science. It does make a claim to scientific veracity. A philosophical system lays down propositions about the make and texture of the world, propositions that run the risk of being wrong. Hence ingenuity has been employed in plenty to make discrimination as to where science leaves off and philosophy begins. We are even told that the distinction is this: whenever a domain of knowledge reaches definiteness and exactness, it then sets up as a distinct science, while philosophy comprises the ever-diminishing residue of the muddled and confused. This would be an excellent way to annihilate the value of philosophy altogether. Yet the future sum of the sciences does promise to be conterminous with the sum of things. Once there was a time when philosophy was held to be the study of mind, the sciences studied matter; but there have now arisen the mental, the psychological sciences. Even yet we are told that philosophy is conversant with values, and science with facts; but there are already the beginnings of increasingly important sciences of values. Before long, or so it would seem, science will have appropriated to itself all the sweets of knowledge, and philosophy can enjoy them only vicariously. Philosophy is left in the situation of the little girl whose brother would not share any of his candy with her, but magnanimously offered to let her kiss him while his mouth was sticky.

Thus it stands. On the one hand, philosophy can not rival art and literature in the domains of fiction. Its fictions are dead and theirs are alive; its imaginings are skeletons, but theirs have the warmth of flesh and blood. On the other hand, philosophy would seek an abode in the districts of fact. But the serried phalanx of the sciences bars the way, and prevents approach. This is their country; no room has been left for a stranger here. What then remains for philosophy?

There is one noteworthy answer recently advanced or readvanced. Let philosophy abate her old pretensions and narrow her ambitions.

Let her become one of the sciences, the science which is the most abstract. Then as a science, with the methods of science and the impersonality of scientific inquiry, she may hope for the same success, the same constancy of progress which other sciences have enjoyed. Such is the proposal of Mr. Bertrand Russell.

That there is a possible science such as Mr. Russell looks forward to, a science of fundamental categories, of generality as such, a science of logic far more ultimate and extensive than the ordinary logic of *Barbara Celarent*—these theses we are not anxious to dispute. Nor do we doubt that decisions about matters of exceeding abstraction and generality, far remote from ordinary problems, may have astonishingly wide and important consequences. A breath of air in the Andes may send a snowflake to one side or another of a point of rock, and thereby determine whether, through glacier and mountain torrent and river, that drop of water shall reach finally the Atlantic or the Pacific. And even so, in these remote matters of abstruse inquiry, one turn or another may be taken without noticing there is an alternative, and from that point on, the dialectic gathers force and mass, everything seems swept on in one direction with inevitable convincingness, until the philosopher believes his system admits of no rival and is founded on eternal categorical necessity. Such, for example, is the really marvelous dialectic of Francis Herbert Bradley. White moves so and so, then black moves, then white again, and behold! the decision of that philosophic chess game is already recorded in the book of fate. There is an innocent-looking suggestion put forward; it seems so plausible and so little worthy of dispute that you acquiesce in it; and you are caught in the net, caught so cleverly that you imagine you are still free, and moving of your own accord to those resultant conclusions that arise so naturally. You look upon the inquirers who travel other roads as being necessarily less clever than yourself. They have doubtless not thought the question out. Some day, if they are keen enough, keen as you have been, they too will see the light and come to your conclusions. You pity them. Your own faith is built upon a rock.—Yes, it is true that these apparently remote questions are significant. Granted that we want our philosophy to be reasoned and reasonable, these subtle matters are fully as important as Mr. Russell maintains. A training in such matters, an intensive study of them, is as necessary for the philosopher as mathematics for the physical chemist. All this we may grant Mr. Russell.

But philosophy? Shall we make philosophy into a science? Reduce our philosophy without remainder even to this most metaphysical and ultimate of sciences? Consider. Does not the philosophy that abates one jot of her old pretensions abdicate her throne altogether? Is it not the boast and glory of philosophy that she takes

the universe for her province, and admits no bounds to her empire; that her thoughts go out to the ends of the world, and her rule and compass span all the infinities? "But," you say, "limitation is requisite for success; too bold an ambition will overreach itself and philosophy will fail." And is it, then, such a lamentable thing to fail? Are there not tasks wherein to try, though you try and fail, is a greater distinction than all the smug successes you could win in lesser ventures? It is better, we say to Mr. Russell, that philosophy should remain philosophy, a splendid failure, than that it should renounce its high calling to win a more commonplace success. If philosophers to-day are wary of system-building and take conceit in the modesty of their aims, it is because they lack courage and lack power. He who is too afraid of being in the wrong stands an excellent chance of never being in the right either. Better a downright false philosophy, contrary to obvious fact, than a philosophy that is a nullity. Intellectual modesty may be a personal virtue in a philosopher, but philosophy can not itself be modest and remain a philosophy. That philosophy should constantly strive to emulate the precision and impersonality and justice in weighing the evidence which distinguish science, is, we grant and proclaim, a worthy and necessary ideal. A philosopher should never for a moment forget that his most cherished theories are, once and for all, theories; that he does not know everything; and that the feeling of absolute assurance is excellent evidence of failure to see the other side which every philosophical question possesses; but, all this notwithstanding, he, as a philosopher, is still bound to have opinions and plenty of them, and the courage of his opinions; and when he stops being bold, stops following his opinions to their uttermost extent, he ceases to be a philosopher, and becomes not a cautious scientist, but a nonentity. Philosophy is that science which abstracts from nothing, that science to which nothing is alien and for which nothing is negligible, and therefore is philosophy not a science at all. Philosophy is philosophy.

But what then is the sort of achievement to which philosophy looks forward? There are at least two types of aims which have been mixed up together under the one title of philosophy, and they need to be discriminated from one another, as well as from science and art. We might call them theoretical and practical philosophy, yet the terms mean little until explained.

Theoretical philosophy is a sort of knowledge. But the characteristic trait of it is that, while scientific knowledge is accomplished when facts are known, known as they are, philosophical knowledge is then no more than ready to begin. The facts now need to be interpreted and understood. This interpretation is not an evaluation of good and bad, and it is not necessarily a seeking behind and beneath the facts

for some reason and ground that explains why things are as they are. It may well be that the facts in question are simply brute data, without reason and without worth. But the interpretation which the philosopher gives of those facts consists always and essentially in a notable widening of the purview. It is a widening, to use the terminology of the old association psychology, by both contiguity and similarity. Where do these facts stand in a larger context? How do they compare with other facts like them or differing from them. The mere widening by contiguity might be done by science, though never so fully done. But the widening by similarity and contrast is much more peculiarly philosophical, in so far as it asks for the instituting of comparisons, not merely with what is, but with what might be; and it opens to the philosopher not only the realm of the actual, but the limitless stretches of the ideal and possible; introduces him to things even forever impossible in this world of ours, yet not impossible in themselves. Now there is no philosophic value in castles in the air, whatever may be their artistic beauty. The only value from the intellectual study of the ideal and the possible is when it throws a new light of contrast or likeness upon the actual, reveals what is contingent in the actual and so could be otherwise, reveals the facts of the strange arbitrariness of many an aspect of this world of ours, until the common things of earth take on an arresting wonder and mystery. And such comparison reveals likewise similarities and analogies among things the most diverse, threads of likeness or relation that knit together things far remote.

All this is an intellectual inquiry. But it is an intellectual inquiry which has no peculiar subject-matter. Philosophy can begin anywhere; the characteristic of it is only that it never rests where it began. It is never satisfied with knowledge of given fact, however well certified to. It looks out beyond. And it is an intellectual inquiry the truth of whose results, though very much the same as the truth of science in being some correspondence of knowledge and things, is subject to tests which are not merely any pragmatic ones of success or of leading into touch with facts. If there is successful leading involved, it is ever a success plus an interpretation of that success. This point is not altogether peculiar to philosophical knowledge, but it assumes a special importance there. No comparison, for instance, can ever be tested by merely being led to the things compared, and especially so when one of those things compared does not exist at all. Yet every proposition we utter has its contradictory, as is a commonplace of logic, a commonplace with very uncommonplace implications. For we can never judge without asserting that something is this way and not otherwise, thereby comparing the way it is with the way it might be, but nevertheless is not. And only the

simplicity, or apparent simplicity, of this comparison leads us to ignore its presence, as so regularly we do. The only test of a comparison is another comparison; you get more data and you compare again. The things are doubtless given as like or different, but they do not compare themselves. There is, therefore, no return from a comparison into a flow of non-intellectualized experience, no goal of merely immediate recontact with fact. Therefore it follows that the progress of theoretical philosophy, which thus looks wider and brings in new items to compare, is to be contrasted with any such sort of practical interest in making machines and keeping us fed which is often, justly or unjustly, considered the final aim of scientific knowledge. A philosophical inquiry furnishes means only for more philosophical inquiry; it is a self-perpetuating process. Philosophy leads, of itself, naturally and only to more philosophy. If it is to have value at all, it must be because it is worth while in itself, that it is its own excuse for being. Though it is not for the theoretical philosophy to estimate its own worth to human inquirers, there are those of us who, as practical philosophers of the type to be mentioned in a moment, do come to consider it as a priceless privilege to philosophize so, because it is a great and noble thing to stand apart from the world and yet have knowledge of it; to stand apart, not plunge in, as Bergson bids us do, for only he who is not too much immersed in the game can see all things in their just proportions; to stand apart, the clear-headed critic, and say to the harshest of brute facts, "You are but accidents after all," saying to that which bulks greatest in our foreground, "You are, in the total of the great world-prospect, a very trifling thing."

But there is, and we have just referred to it, another sort of philosophy. Practical philosophy is a matter not so much of knowledge as of will. There may be things valuable which are simply found to be so, about which we can say there is a true view and a false one. It is then a matter for intellectual inquiry to find out which is which. If all value is of this sort, there is little or no ultimate place for what we have here termed practical philosophy, save as an emotional acceptance of given truths about values. But our present situation is not ultimate nor ever will be. And it does indeed seem obviously true of us in our present situation, as well as at least possibly a permanent factor that would survive into even the most ideally ultimate point of view, that sometimes our judgment, "This is good," means really a fiat of ours, "Let this be my good." We have here a sort of thing that never becomes a matter of ordinary truth and falsity. There are those, it is true, who maintain, as does for instance Professor John Dewey, if we do not misinterpret him, that such fiats are really propositions, which are not true as first uttered, but are made true or false

by some one's considering them as if true and living accordingly, so that he thus experimentally finds out whether he is still willing to accept them after trial. But there is no real objectivity gained even so; the result arrived at must again be accepted in a fiat, "Let this be my good." If the primary decree has a proviso, "Let this be my good, because it has these and these characters," the qualifying clause may indeed be refuted by experience, but that is due to its being an ordinary judgment of fact, not created by the willing of it. Such a "passing of judgment" on things, such evaluating of their final worth, is therefore in its essence a fiat of will, to be accepted or rejected, but never in an objective sense true or false.

Now, as a mere matter of fact, some of the most remarkable examples of what has been historically called philosophy have been fiats of this sort. They have been fiats of acceptance or rejection directed towards the universe in general, either towards the whole range of this our actual world, or towards some of those possible or ideal worlds which theoretical philosophy may dispassionately contrast with this of ours. It is generally such a valuation which we have in mind when we speak of a man's philosophy of life; it is what we mean when we speak of a national philosophy. We do not in such cases mean what men and nations think about the world. Doubtless they most often think very little. We mean how they feel about it, and towards what ideals their will is directed. It may also become more explicitly formulated, and embedded in the midst of many judgments of fact. But we have such a philosophy in any case wherein some one declares, "To this world of ours I say yes"; or when he says, "I hate these brutal facts; let us escape to where beauty is uncontaminated and reason free"; or when he says, "Let us accept this world; but looking on it with eyes that cease to desire, let us view it as a show, a spectacle, like the play-world wrought by the magic of some master-artist." Such a one is no longer a philosopher of the theoretical sort. His hopes and fears are in the game. His dreams and his aspirations have become weights in the balances. Truly he must, to deserve the name of philosopher, have still something of the theoretical basis to give him a content which he accepts or rejects; and something of the theoretical attitude also viewing at times his wildest dreams and his deepest aspirations with an eye that is clear-sighted and aloof. But in a practical philosophy there is always something more, a choice, a decision. Whether we call this element philosophy at all, or call it rather religion, or what not, that does not much matter. It seems to overlap one aspect of religion, yet to include other cases hardly to be termed religious. But it does matter a great deal to note that we have this sort of attitude. We have it all of us. The philosopher has it only more marked in degree, more self-conscious, more voluble in ex-

pression, than the layman. Mr. Bertrand Russell's *A Free Man's Worship* is a perfect illustration; though he most among contemporary philosophers has urged upon theoretical philosophy that it be impersonal, "appealing to less mundane hopes and fears." It is a primitive source of inspiration from which comes the driving force that carries the investigator across the more arid and arduous fields of strictly theoretical philosophies and abstract sciences, giving him a faith that that sort of activity is eminently worth while. Once and for all we do, every one of us, explicitly or otherwise, evaluate and pass judgment on the world; we do pass judgment on it as well as seek to know it; we decide where we will to stand, we choose and we reject.

And now our old question: "What, then, is the value of false philosophies?" Let us consider it from the standpoint, first, of theoretical, and then, of practical philosophy. There is, if our opinion be correct, no one theoretical philosophy towards which we are moving; we are moving towards a loosely coordinated group of ways of taking the world. Endless are the possibilities wherewith we many contrast it; inexhaustible by us are the comparisons of diverse aspects which we may set up. And herein is found the present value of any historical philosophy. Theoretically, Spinoza, for instance, may be false, for he meant to tell us about present reality and he told us wrong. We may think that we can disprove great sections of his philosophy, and with more knowledge we could disprove it all. The world is not built like that. But if Spinoza has, as a theoretical philosopher, done his work thoughtfully and well, he has furnished us with a sketch of a world that might be ours. It is a possible world, a plausible world. In the very considering, the very disproving of it, we must necessarily come to understand our world better by the contrast. Had Spinoza started with the explicit aim of creating a fiction, a dream-world, the chances are that he would not have given us anything so profitable to compare with the actual world as he has done; lacking in earnestness, his pen would have traced a caricature, a thing that could not live. The artist, limiting himself to one fragment of the concrete, may deal in fictions for their own sake; but the philosopher's task, set him by the tremendous elaboration of the world of fact, is too heavy a one to permit him to stray far from what he thinks is fact and not fiction. And even the artist seems to gather strength by nearness to the solid ground of actuality; the fancies of even *A Midsummer Night's Dream* are pale and empty, when set alongside the gripping reality of *Hamlet* or *King Lear*. But to us who read philosophy, and wish by its aid to understand our world better—to us, Spinoza, or Plato, or Hegel, or Immanuel Kant, must appear as often substituting fiction for fact. And we might study them, as too many a beginner studies the history

of philosophic thought, as illustrating the aberrations of the human mind. But we also may study them as part of philosophy, a living part to-day, and by no means a mere catalogue of dead and moldering errors. Our world will never be so well understood as by him who understands it in its likeness to, and contrasts with, the worlds of Plato, and Spinoza, and Kant. By their very departure from it, they furnish us a fulcrum outside the world of fact which will give us a leverage on it, a new standing-place whence our eye can more adequately survey it. To understand anything you must know more than it; from beyond and without it you must bring the standards by which it can be measured and judged. Such then is the theoretical value of false philosophy. Such is the reason why, though we read with only an amused curiosity many of the scientific blunders of the Greeks, we nevertheless turn to the philosophical pages of Plato and Aristotle with an eager desire to learn. Science, confining itself rigorously to the narrow limits of its actual subject-matter in hand, leaves its discovered errors hurriedly behind it, because they are to it a source of shame, and an uneasy warning to present science that it, too, is infected with mortality. But the progress of theoretical philosophy is one that can carry all its past with it, the richer by all that has been done; and can draw ever new profit from ancient error, as well as from ancient truth.

The errors of philosophy are not so directly relevant to practical philosophy, because the latter is, as we have seen, not to be judged by standards of truth and falsity. But an evaluation of the world which is to furnish any lasting satisfaction to one who has had his initiation into theoretic philosophy, must found itself on truth. If for instance, some particular evaluation of a world is of a world wherein man is the center of the physical universe, and it declares therefore that suns and stars move in order that he may have days for work and nights for rest,—that evaluation is not of this world we live in. But after all, seldom are the great evaluations much qualified by such conditions of true and false. There are, for example, optimists and pessimists among the mechanical philosophers; there are likewise both optimists and pessimists among the idealists; likewise there are on both sides those whose temperament leads them to declare that the matter of temperament is an impertinence. And philosophies, big and little, have been, and doubtless ever will be, saturated with these evaluations, almost as multifarious as philosophers have been numerous. Such evaluation can be more or less intelligent; it is so, however, only when there has been some sort of choice. Men are doubtless born with one or another philosophic temperament. But man can also be born again in philosophy, when he has appreciated and compared and deliberately chosen. But to do this he must guide his choice by con-

sideration of the great galaxy of previous choices and evaluations; not merely learning what Spinoza or Plato thought, but feeling within himself what it was they clove to, what it was they desired. He who would be a philosopher must learn to feel with the philosophers, as well as think with them; and pass judgments of final preference with them. And here their errors are seldom to be dwelt upon; but the tone and color and flavor of their vision are a priceless heritage, a new glory that is given to all mankind.

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PURPOSE AS A CONSCIOUS CONCEPT

IN their repudiation of anthropomorphism as a method of explanation both scientists and philosophers agree. The significance of mechanism as explanation has been such a hard won and widely profitable achievement that any suggestion to curtail its application naturally arouses vigorous opposition. But that there may be advocated a method of procedure the converse of anthropomorphism, carrying in its train consequences which may be no less serious, appears to be not so generally recognized. That is, in contrast to psychomorphism (the modern refinement of the older anthropomorphism) physicomorphism (if I may be allowed to use the expression) is practised when physical concepts are applied to a realm where their employment is not so much superfluous for explanation as it is unintelligible. To extend mechanical description so as to include all activities of living beings is, I take it, an instance of this nature.

Professor Warren's study of purpose¹ with its point of departure in the analysis of conscious purpose affords a particularly valuable basis for the thesis I wish to elaborate in this paper. The biological approach to the discussion, while the fundamental conclusion is in general agreement with the position of Professor Warren, has proceeded (and naturally so) in the direction of proving that experimental evidence is favorable to the physiochemical conception of certain activities of living beings characterized as purposeful. The further implication is suggested that all organic activities may eventually be included under the same rubric. Here, psychological categories are assimilated to biological, purpose is one type of physiochemical description. In Professor Warren's discussion, on the other hand, it is a significant fact that the analysis of the conscious experi-

¹ *A Study of Purpose*, this JOURNAL, Vol. XIII. (1916).

ence comes first. Here the elimination of certain factors usually considered essential to conscious purpose is effected with the result that the biological processes are assimilated to the mental events. Now the argument I propose to develop in the following pages maintains that this elimination of any peculiar features of conscious experience and the assimilation which follows is made possible by a fundamental confusion in the distinction between the mental and the physical, a confusion bound up with the ambiguous use of certain terms employed in the description of conscious purpose. If the basal assumption concerning the relation of the mental and the physical rests upon their absolute existential disparateness, it may prove that the type of psychology which, while recognizing this distinction as relevant to one stage of explanation, advances to another level of interpretation of the diversity points the way to a dissolution of the confusion.

We proceed to the analysis of conscious purpose. Briefly, the final conclusion reached as the result of the examination of purposive experience is that anticipation and fitness are characteristics which distinguish this type of experience from other series of mental events. The illustration which serves to illustrate this fact is as follows: "I am reading and it grows dark. I think of turning on the electric light and without hesitation the action is performed." That is, psychologically, the series of events consists in the perception of darkness, the idea of light and the perception of light. The idea of turning on the light constitutes the forethought or the anticipatory experience. The analysis then proceeds to affirm (and here we come upon the crucial point in the description) that the peculiarity of this experience, that which renders it purposive, is the fact that it embodies an inversion of the usual order of events. In general the representation or idea follows the perception; in this type of experience the idea precedes the perception. The point that I desire to advance here is that this statement gets its only possible meaning from an ambiguous use of the term idea or representation. The meaning of the term idea which can be involved in the statement that the idea generally follows the perception is relevant to a *specific perception*, a definite experience which for certain reasons is designated a perception. The representation is a representation of the specific experience to which it refers, a reproduction in the sense of lacking the characteristic of the perceptive factor, and this it is as a matter of definition. On the other hand the employment of the term idea in the description expressed in the statement, the idea or representation precedes the perception, involves a different significance. Manifestly it can not be solely a representation, a reproduction in the sense of being a replica embodying a definite previous

experience. In other words, idea here is not merely if at all a representation of what has happened. It consists of a prerepresentation and embodies an antecedent occurrence to just the extent that it contains elements which have been previously given in a perception. But, on the other hand, it can be characterized as anticipatory, as forethought, because it involves additional factors or qualities (whatever these may turn out to be) not discovered in the perceptive experience. It is representation plus a prospective element: the representation has reference to a future experience. In some manner this fact of future reference as embodied in the present experience must be taken into account since it is the pivotal point of the whole analytical description.

Let us revert to the instance given above in which the order of events was presented as, the perception of dark, the idea of light, the perception of light. Does analysis reveal these occurrences as a successive series, or does not a closer scrutiny disclose that finding more harmonious with the facts, which discovers perception of dark and idea of light to be simultaneous factors in a single complex?² Perception of dark is the experience of an absence of light, absence being a privation and therefore denoting something (in this case the darkness) to be removed or replaced by a different condition. It means the presence of the future light in the only sense in which it can be present without committing a contradiction in terms. Thus there is discovered a meaning in the statement, the future event influences a present. The future as future can not conceivably affect a present, but the future as a present future or idea is a conception which we may entertain.

Furthermore, if this forethought which marks the distinguishing trait of conscious purpose functions in a manner similar to the sensory element in all perception, and differs only in the fact that the prospective element is less definitely in consciousness in purposive experience, then conscious purpose is a special case of the purposiveness of all mental life. For example, I am walking along the street, I see a person advancing towards me from the opposite direction, I turn to the right to avoid a collision all the while continuing my conversation with the friend at my side, having performed this action with no obvious notion of so doing. In this case we have the element *to turn aside* bound up with the sensory patch of color, parallel to the forethought in the instance above, but differing from it in emphasis so that it is not apparent to immediate inspection. The perception itself involves elements which function in a manner similar to that of the forethought. That is, the sensory stimulus,

² John Dewey, *The Reflex Arc Concept in Psychology*, *The Psychological Review*, Vol. III. (1896).

the patch of color, involved the reference to the obstacle to be avoided, the turning aside, a possible future experience.

This suggests the consideration of an important point in connection with the description of a purposive experience. As noted above the typical order of events was designated as follows: perception, idea, perception, these distinctions being those of the psychologist or observer, and not those of the experiencing individual. These distinctions, accepted without question by the psychologist, with the assumption that they would be the utterance of the experiencing agent, could he articulate the events in such terms, permits the vibration between the two sets of categories pertaining to the physical and the mental respectively, and thereby results in the violation of the basal standpoint of the discussion. Thus if the individual's description which runs, it is dark, I must turn on the light, the light is here, should be rendered in general terms the series would be, first a physical fact (it is dark), second a mental event (the idea of turning on the light), and third a physical fact. That is, the first member of this order *is accepted as* a physical fact or more exactly a physical fact is there involved, and is not apprehended as a perception, if by perception is intended a mental event. The same thing may be said of the final perception which is characterized as fit. The psychologist differentiates perception and idea by the possession of a sensory datum in the former. This distinction involves a reference to a physiological condition, which can not be included in the account of the experiencing agent in so far as he is limited to the particular experience under consideration. That is, purporting to give a description of a series of events within the conscious realm, a distinction in the nature of these processes is made which involves, but does not explicitly recognize, an extra-mental factor.

To sum up the conclusion of this discussion of purposive consciousness, we find that, instead of revealing an inversion of causal order, anticipation gets its significance from the fact of a non-causal or non-mechanical description of events. This, we must recall, is the result of the analysis of our description of a subjective process; it is a matter of meaning and in no sense a proof derived through objective observation or experimental evidence concerned with physiological processes. This latter point brings us to the consideration of biological purpose.

We come now to the concept of purpose as applied to certain activities of living beings. I say certain activities advisedly, because it is in general only to specific types of organic activities and not to all vital processes that this category is ascribed. Professor Warren maintains that the distinguishing characteristics of such processes

are found in the phenomenon of anticipation followed by an activity which is designated as fit, this latter quality being a judgment of the observer and not a quality inherent in the process. For example, the animal seeking its prey actually begins the process of seizing and masticating before the food is possessed. The animal striving to get out of the cage and to obtain food prepares for that result by beginning some of the activities involved in eating before that process is operative. An activity of this sort is anticipatory in view of the later process for which it is a preparation. In other terms, it exhibits a reaction to a situation before the situation to which it is a response exists.

Now while it is asserted that such operations in terms of their own inherent qualities must be conceived as strictly mechanical or capable of adequate description in physiochemical terms,³ according to Professor Warren they are purposive in so far as the mechanical process exhibits an order which is the reversal of the usual causal order.⁴ Masticating generally takes place only when the food is in the mouth. Occurring before this event, it is a preparation for it. Now the point I wish to emphasize in this connection is that it is allowed that only from the point of view of the observer can the phenomenon of anticipation be said to exist. To repeat, the process viewed with respect to its own inherent qualities is physiochemical, mechanical, causal. We ask then, what is the significance of the introduction of the point of view of the observer? Is it a justifiable basis for the characterization of a process as purposeful with the applications derived from it? The conclusion I desire to advance, respecting this point, is that ultimately this reference to the observer resolves itself into the inclusion of the process which is being inspected under some more comprehensive situation. In the instance noted above, the masticating considered with reference to the actual possession of the food, the consumption of which makes for the well-being of the animal, is purposive. If this be granted, then the ground for designating the particular types of activities specified, as anticipatory, is removed. Any eating process in so far as it tends to the survival of the individual might be considered as preparatory to such

³ We are not here concerned with such a conception as the entelechy of Driesch which superimposes an additional explanatory element upon the physical account.

⁴ In asserting the fact of an inversion of the causal order such modifying phrases as, in a sense, of a type, so to speak, are frequently interpolated. The contention which follows ascribes to them a far more important function in obtaining the results reached by Professor Warren than appears to be assigned to them.

a result⁵ provided our interest was concerned with that fact, and this is not admitted in the conception of purpose defended. That is, if we appreciate the reason for characterizing a stage of a physiological process as anticipatory with respect to the end term selected by the interest of the observer, then any earlier step of such a process may be viewed under given circumstances as preparatory to a particular result. That is, preparation for an end has no more significance than a sequence of before and after except as the observer selects a member of the series (arbitrarily as far as the series above is concerned) which he fixes as a result, even if his motive is grounded in a fact without the investigation. The procedure in such an explanation reduces to the setting up of limits to the domain of a problem, and then transcending those boundaries by enlarging the field to include data not relevant to the terms of the original problem. The physicochemical process described in terms of its own inherent qualities derives its term denoted as final from the interest of the observer (in this case, concerned with the survival of the individual), in the same manner as this process (the survival of the individual) gets its characterization from its relation to a more inclusive body of physical facts (an environment). Or, approaching the matter from a different angle, it might be said that neither of these processes owes its character to the point of view of the observer, if we consider that the human interest may be disregarded in the special problem as is the case in general scientific procedure. Considered from its effect upon survival of the individual, eating in general or breathing is just as much and just as little anticipatory as the initial mastication is to the catching of the prey. Thus, all such expressions as end of activity, result, prospective propensity, controlling propensity,⁶ preferred or selected responses, employed by their various authors to denote the peculiarity of purposive organic processes, are simply so many diverse ways of denoting the relation of the particular activity under discussion to other more comprehensive processes and should be divested of any additional implication.

There is a conceivable meaning which could be attached to the characterization of an organic process as anticipatory (inherently so), and that is, in the event that a non-physical or mental element (such as a vague feeling in the case of the animal striving to get out

⁵ The fact that intervening acts must occur before the end process, in relation to which the first member of the series is characterized as preparatory, in no way affects this statement.

⁶ R. B. Perry, *Psychological Review*, January, 1918, p. 12. "It is essential that the action should be thus determined by its relation of prospective congruence with a controlling propensity which is both prior and more general."

of the cage, or a vague idea of the food resulting in the masticating before the prey is caught) determines any part of the activity, we should be obliged to assert then not a reversal of the causal order, but rather a non-causal sequence to the extent to which that factor entered into the determination of the process. I am not here contending for any such hypothesis; I merely desire to point out an intelligible conception of the expression, the response to a situation in advance of the existence of that situation. On any other basis such phrases as dissatisfaction and striving employed in connection with the description of what is held to be a series of physical events, even in the capacity of inefficacious correlates, have no significance nor excuse for being. Variability and selectiveness in response, conceptions taken over from mental life, are rendered unintelligible when made descriptive of strictly mechanical series. From the standpoint propounded there can be no variation of response; every reaction is as necessary as every other. Picturesqueness here tends toward confusion and does not assist in clarification.

If the above considerations concerning the significance of a description based upon the point of view of the observer hold, then the basis for assimilating organic purpose to conscious purpose disappears. There is no meaning in the reversal of a causal order if a physical explanation obtains. There is no place for a concept of preparation or anticipation employed in a sense which permits it to serve as a basis for agreement between the two divergent orders of events distinguished as mental and organic, the latter ultimately reducible to a special type of physical process. If the assumption of psychophysical parallelism proves not so clear and satisfactory in its developments as it may appear to be, is it inevitable that an hypothesis diverse from this necessarily retards the study of the brain and nervous system?

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"DUALISM AND ANIMAL PSYCHOLOGY:" A REJOINDER

PROFESSOR WASHBURN'S reply to my recent article *Dualism in Animal Psychology* raises so clearly and insistently the fundamental issues in dispute between the dualist and the behaviorist, that a rejoinder seems imperative, the more so since my article failed to make clear in certain matters the real point of my criticism.

¹ E. B. Holt, *The Concept of Consciousness*, p. 308. "Now in attempting this deductive account of consciousness, I have had one prime purpose in view, and that is to free once and for all the study of the physiology of the brain and nervous system from its present and retarding association with metaphysics."

As I understand it, the issue is briefly this: Is psychology properly concerned with a class of phenomena (conscious processes) which are observable only by one person? Must therefore the psychological study of animals and of one's fellow-men rest, first, upon the argument from analogy, and, second, upon the capacity to reconstruct imaginatively the mental processes of the animals or human beings in question?

Behaviorism, as a scientific theory, and not a metaphysical doctrine, is not concerned with the question whether or not there be conscious processes which are hidden from all but one. Its contention is merely that if there be such processes they can not by the very nature of the case be objects of scientific study. For it is an essential condition of scientific investigation of any phenomenon that observations made by one individual shall be verifiable by others. Otherwise indeed a phenomena is not even identifiable. This was the point of my argument that psychological phenomena investigated experimentally "become in effect functions of the factors constituting the standardized conditions of the experiment." Professor Washburn's reply, that the dualist may admit this without affecting his claim that the phenomena are in themselves observable only by the subject, does not meet the real objection, namely, that it is only *as* functions of standardized conditions that they can become objects for science.

Suppose that the problem to be investigated is the determination of minimal changes in grays. The standardized conditions of the experiment include constant lighting, distance of observer from stimuli, time and order of observations, *etc.*, and finally, the use of standardized black and white paper. Let us admit with the dualist, for the sake of argument, that what the subject is observing is a visual sensation-quality which is private and incommunicable. The essential fact remains that the observations can only be described in such terms as: "observations of revolving discs of so many degrees black and so many degrees white," *etc.* Furthermore, earlier and later series of observations can be correlated with each other as observations of the "same" phenomena, only in so far as the phenomena are described in similar objective terms. In other words, the dualists' assumption of the private and incommunicable character of the phenomena under investigation is wholly inoperative for the scientific procedure in question. It affects neither method nor result. What is being investigated is the subjects' capacity for discriminating differences in objective stimuli.

The same point is involved in Professor Washburn's comment: "Nor would the dualist realize why Dr. de Laguna needed to occupy a page in showing that in actual procedure and in results

the studies of a dualist and of a behaviorist in the field of comparative psychology are identical. Since we can obtain no introspection from animals, such a statement would appear to be self-evident: it is the interpretation of results that differs for the two types of workers." But it is precisely the scientific value of such additional "interpretation" which is in dispute. My contention was that so far as *scientific* procedure and *scientific* results are concerned the dualist and the behaviorist are practically at one, and that "just in so far as the dualist claims to infer from the facts of behavior the existence of an inner order of being related in an inscrutable way to those facts, he is stepping outside the bounds of scientifically verifiable hypothesis and entering upon purely metaphysical speculation in the bad sense of the term." This contention, which to me seems the essential one, together with the charge that the dualists' "interpretation" involves, on Professor Washburn's own showing, an appeal to supernatural insight, has been entirely ignored in her reply.

The issue between the behaviorist and the dualist, upon which the whole controversy turns, is, I believe, the nature and status of introspection. It is here that the real strength of the dualist seems to me to lie, as is brought out in Professor Washburn's reply. It is so obvious on the one hand that there are things, like the pain in my tooth or the pressure on the back of my hand, that are directly observable by me and by no one else in the world, and with which psychology is clearly somehow concerned, that the position of the dualist seems inevitable. On the other hand, it is so obvious that the pain in my tooth and the pressure on my hand are not themselves modes of behavior, that the alleged proposal of the behaviorist so to classify them seems sheer perversity. If behaviorism is to be made a reasonable doctrine in the eyes of the dualist it must take account of these facts. Advocates of behaviorism have usually failed I think, to distinguish properly between the behavioristic status of such commonly recognized psychological phenomena as "sensation" on the one hand and "emotion" on the other. The claim that the study of emotion is a study of a type of behavior is plausible enough, but the claim that the study of sensation is a study of modes of behavior is open to obvious objections. "Red" is not a set of reactions in the body but a directly observable somewhat; so also are "pressure" and "pain." But to recognize this is by no means to accept dualism. It is quite open to behaviorists to admit the possibility of directly observing these phenomena, and of course many behaviorists, notably the neo-realists, have maintained this position most vigorously.

Let us admit this claim. Let us admit also that these and other

similar phenomena come within the field of psychology, or at least within the scope of introspection, in so far as they are directly observable by one person only. Psychological introspection is then to be distinguished from ordinary "objective" observation just because it is the observation of that which is essentially private and incommunicable. To the all-important problem which is thus raised: how introspection, which is by definition a sort of observation unverifiable by others, can yet possess scientific value, the only solution I know is that offered by behaviorism, *viz.*, that introspection has such a value only in so far as the introspective observations of the subject are treated as *responses*, and not as statements of observed facts. In other words the introspections are data for the psychologist, as the flight of the bee is for the naturalist, digestion is for the physiologist, or the burning of coal for the chemist. This solution is, I believe, theoretically sound, and it accords moreover with the actual procedure of the experimentalist. The real scientific observer in the psychological experiment is not the *O* but the *E* of the experiment. The series of introspections is a series of responses given by the *O* under the conditions of the experiment, and observed and interpreted by the *E*.

That introspection is a peculiar type of response which needs careful analysis in order to distinguish it properly from other types of response is of course true. I must frankly admit that no behavioristic discussion of it which I have yet seen seems at all adequate. But I do believe that behaviorism offers the only promising theoretical basis for a fruitful analysis of the nature and limits of introspection.

It remains to say a few words in reply to Professor Washburn's question as to the possibility of a non-mechanistic behaviorism. The problem is of course far too large a one to be properly discussed within the limits of this rejoinder. It would seem, however, that it is the assumption of the possibility of a mechanistic behaviorism, *i. e.*, an exhaustive description and explanation of the phenomena of human and animal behavior in terms of physical science, which, in view of the actual achievements of biological science is in need of justification. But however that may be, the terms in which behavior is actually describable to-day are very far from being exclusively physical, or even physiological. The claim that physical or physiological terms are the only ones in which an objectively valid description of behavior can be given, would appear to me, I confess, nothing short of metaphysical dogmatism, and for this reason I doubt whether I have rightly understood Professor Washburn's position. When she writes: "Dr. de Laguna seems to mean . . . that there exists a form of behavior which is not either nervous action or mus-

cular action. I can not guess what behavior, so interpreted, is," my doubt increases. Professor Washburn here ignores a distinction which to me appears of cardinal importance, that between physiological process on the one hand, and behavior on the other. Of course in one sense there is no behavior that is not nervous or muscular action, just as, for example, there is no digestion that is not chemical action. The physiologist classifies a given process as "a digestive process" not on the basis of its chemical character, but because it bears a certain type of relationship to other processes making up the life cycle of the organism in question. The same chemical process occurring in a different organism might not be a digestive process at all because it would not occupy an analogous place in the life cycle of that organism. If we compared the digestive processes of a jellyfish and a rat we might conceivably find no chemical identities at all. Physiology, in short, is primarily the analysis of the internal bodily processes with reference to the fact that they constitute a vital economy. It is the exhibition of a schema, a type of systematic relationship. The schema once made out, the detailed investigation of how, in each distinct species, the various processes actually play their parts in the schema, depends on the use of chemistry and physics. But the use of chemical and physical categories is distinctly subsidiary, albeit indispensable, to the actual procedure of physiology.

In a perfectly analogous way the use of physiological categories (as well as those of physics and chemistry) is subsidiary, albeit indispensable, to the procedure of the behaviorist. For the external behavior of the living being also constitutes a life cycle, an economy analyzable into different factors from those found by the physiologist. A certain response is classed as "play," or a "fear response," not because it consists of certain specific muscular contractions or nervous processes, but because in the individual in which it occurs it occupies a specific place in the larger vital economy which constitutes his behavior. The task of the behaviorist, as I conceive it, is primarily, like that of the physiologist, the exhibition of the complex activities of the living being as a systematic economy. The schema which the behaviorist has to exhibit is vastly more complex than that of the physiologist, since the relationships constitutive of the factors of the schema include relationships with factors of the environment, not exceptionally as in the case of physiology, but essentially and systematically. Moreover such factors in the environment are themselves factors in the schema of behavior. It is for this reason that the economy which the behaviorist has to investigate forms the subject matter of a distinctive science—psychology.

GRACE A. DE LAGUNA.

REVIEWS AND ABSTRACTS OF LITERATURE

Traité de Logique. E. GOBLOT. Paris: Librairie Armand Colin. 1918. Pp. xxiii + 412.

Important logic books are usually distinguished as falling into one of two main classes. Either they interpret, with a sympathy which amounts to acceptance, the traditional or "formal" logic, or, leaving traditional logic almost wholly on one side, they give us a new theory of the work and characteristic standards of thought—usually in such a way that "logic" and "theory of knowledge" tend to lose their distinguishing outlines and coincide. As an example of the first class, we have the work of writers like Mr. H. W. B. Joseph, and as examples of the second, the work of men like Sigwart, Bradley, Bosanquet and Wundt, and of movements such as we find exemplified in pragmatism and neo-realism.

Professor Goblot's treatise is difficult to classify. He does not range himself clearly with some definite group of thinkers with whom he finds himself in sympathy, and then devote his energies to carrying on the work of that group. Indeed, the work of the various philosophical groups, and even the main tendencies of his fellow-workers in logical study seem to leave him indifferent.¹ Perhaps it would be more just to say that he is so much interested in developing his own thought, that he leaves to others the question of making comparisons with the thought of other logicians.

One characteristic of the book must be admitted at once—its originality. The charming preface of Emile Boutroux is hardly needed to inform the reader that his former pupil has worked his own way to his own conclusions, and that the study of scientific method, especially as exemplified in mathematics, has been especially influential in forming his thought. The detailed treatment of the concept as a "virtual judgment," the theory of deduction as quasi-mathematical, the theory of teleological induction with its mindless purposefulness—these and many other theories bear the undeniable stamp of the author's discovery. Indeed, there is hardly a page in the book but reads like a genuine discovery, and it may fairly be confessed that the chief characteristic of Goblot's work is its originality.

¹ For example, the idealist and neo-realist schools are hardly mentioned, even by implication. Pragmatism is mentioned, but in a perfectly external way. The "Logic of Relations" is discussed briefly, in reference to a criticism of Lachelier. Lotze, Bradley, Bosanquet, Wundt, Erdmann, Dewey, and their characteristic doctrines, escape all mention. Sigwart is mentioned once, but only in order to support a negative criticism of a theory traditionally ascribed to Kant.

Originality—yes. But are these discoveries *new*? Does Goblot add anything to what we have already learnt from other recent writers? Let us consider. The rôle of intelligence is said to be to substitute art for nature, and we are explicitly informed (§ 2) that one of the novelties of the book consists in regarding “substitution of the imperative for the indicative” as the essence of reasoning. When, however, we read the chapter in which this view is further developed (chapter XVII., on value-judgments), we learn that intelligence finds means to ends, but the ends are indemonstrables, arising out of the depths of our nature with the force of an imperative. But this is in essence nothing more or less than our old friend, the practical syllogism of Aristotle, tricked out in modern guise.

Again, in dealing with the theoretical syllogism, we are told that, while the “categorical” syllogisms of Aristotle do not advance thought, a kind of syllogism for the discovery, or at least elaboration, of which Goblot claims credit—the “hypothetical” syllogism—does advance thought. The detail of hypothetical syllogisms is worked out so as to correspond to the details of *Barbara*, *Celarent*, *etc.*,² and is certainly new. But the principle involved is surely not in any sense new. Its discovery, in acceptable form, is usually associated with the name of Sigwart, if not of Lotze, and it has long ago become an integral portion of modern logic. Indeed, in principle, the standpoint taken by Goblot’s treatise has already been passed. For since the work of Bradley and Bosanquet has familiarized us with the view that all thought is both categorical and hypothetical—categorical so far as sensory, and hypothetical so far as intellectual—Goblot’s sharp opposition of the concepts “categorical” and “hypothetical” as applied to inference has lost much of its point. In spite, then, of genuine originality,³ Goblot has here failed to reach the front-line trenches of present-day logical advance.

A third discovery, in the light of Goblot’s own studies of mathematical method, is that thought is essentially synthetic. The essence of mathematical inference, for example, consists in the “construction.” But surely this has been a philosophical commonplace since the time of Kant, and for a student familiar with the work of Lotze

² Goblot follows Lachelier in refusing to recognize a fourth figure. He also identifies the negative moods of the first two figures. *Datisi* and *Disamis* are also identified.

³ By “originality,” it is meant that Goblot makes his own discoveries, whether by discovering for himself *paths already known* to others, or whether by discovering *new paths* which lead to known conclusions. It is not meant that the *conclusions* are unknown. Sometimes this happens to be the case, and then Goblot’s thought is not only original, but also discovers something which his colleagues would regard as new.

and Sigwart—to mention no others—contains nothing which could be called new. Indeed, since Bradley's demonstration of the interconnection of analysis and synthesis, and especially since the very thorough treatment which the constructive work of thought has received at the hands of almost all modern logicians, it is hardly too much to say that Goblot's discoveries in this field, though undoubtedly original—*i. e.*, made by himself—are almost naïve. He writes as though "formal" logic in its older form still held the field and needed to be routed.

In a number of points, then, which are of fundamental importance, the book presents us with little which can fairly be called new. It remains to discuss one other point, which—at least at first sight—seems more promising. This is the treatment of "teleological inference." Stated briefly, his view is as follows: Baconian logic studies causal laws. But there are various types of causal laws, and the time has come to make an advance upon the logic of Bacon and Mill. Causation in the usual sense is regarded as a continuous chain without beginning or end, but there is one type of causal series which is more than this. Certain series have, even as processes in *rerum natura*, a beginning and an end, and scientists employ specialized tests for dealing with such special causal series. Examples are to be found, *e. g.*, in physiology, in such cases as the creation of an organ by a function. Some initial stimulus sets in motion processes which come to an end when an appropriate organ has come into being. There is in such cases a purposefulness on the part of nature, and it is exemplified in many biological phenomena, such as natural selection, adaptation, *etc.* This purposefulness is, of course, unconscious, and the conscious purposefulness with which, *e. g.*, human beings adapt themselves to concrete situations, should not be regarded as the exercise of a "free" will—whatever that might mean—but simply as a more complex form of this fundamental biological purposefulness. Just as the logic of Bacon and Mill provides canons for establishing laws of causality, so the new teleological logic should provide special canons for testing and, where possible, establishing the special kind of causality which is purposeful. Purpose and causality are thus not rigidly opposed to one another, but what we call purpose is simply a specialized kind of causality, and its study should be recognized as legitimately belonging to the sphere of a rigidly empirical science.

That this view is largely "original," there is no reason to doubt; and as applied in this way to logic, it is also largely new. But in itself the theory is not entirely novel. The view that disturbance of the equilibrium of an organism leads gradually to the recovery of

a new equilibrium, is well known in biology, and has been very fully worked out in psychology.⁴ In Goblot's treatise, the comparison with the "inductive logic of Bacon and Mill" is certainly suggestive, but his treatment is thin and sketchy, and leaves us with a mere outline.

So much for the major points. Minor points are treated in the same kind of way. That is to say, the discussion is almost always suggestive, and occasionally seems illuminating, but further reflection produces doubt as to whether the reader has really learnt anything which could be called *new*. Thus the treatment of the "indemonstrables" as essentially admitting of alternatives from a strictly theoretical viewpoint is admirably clear and illuminating, and seems highly original—but in principle is thoroughly familiar to every student of the Kantian "antinomies." The treatment of definition seems fresh and original. The treatment of classification seems original, indeed, but poor, and produces no accession of insight. The student of Wundt already knows more about classification than Goblot can tell him, and in the case of definition, he is left wondering whether the chief function of definition is, after all, to substitute a clear for an obscure conception. He also wonders whether Goblot really believes that such an entity as an "initial" definition—a modern version of the Aristotelian "essence"—is really attainable by man.

Apart from questions of content, the book is written very unevenly. Certain chapters—especially in the more "formal" part—are so much condensed as to be at times obscure. In a few sections it is even necessary to take pencil and paper, and work one's way through the various statements as if they were so many unfamiliar algebraical examples. In other chapters—especially chapters XIV.–XVII.—the treatment is so loose and sketchy, that one is surprised to see them published in what is professedly a systematic treatise⁵ on logic.

Partly for this reason, and partly for others, it is far from clear for what class of readers the book is intended. Certain portions—*e. g.*, the first part of chapter XVIII., and a number of the simpler historical explanations, such as the characterizations of Aristotelian and Baconian logic—might be read by the veriest beginners. Other portions—*e. g.*, most of the closer reasoning in chapters III.–X.—might be worked through with profit by the average college graduate in this country. But few students would be able to appreciate

⁴ By G. F. Stout, in his *Analytic Psychology*.

⁵ The preface, written by Boutroux, explains the thread of connection here, but it remains true that the connection is to be found in the preface, rather than in the chapters in question.

the later chapters (XIV.-XVII.), and in any case the reader's judgment would be much exercised in deciding what he ought to label as "Goblot's view" and what, on the other hand, he might safely regard as authoritative. For example, the reader is told that judgments of difference are affirmative, and judgments of identity are negative in character, and there is not the slightest hint that a consensus of logical opinion takes the opposite view. He is also informed that no *logical* arguments have ever been brought against Hamilton's doctrine of the quantification of the predicate, and that, in fact, the doctrine is acceptable.⁶ It is further stated that the procedure of mathematics is typically *deductive*, and there is not the slightest hint that other authorities—such as Wundt, and even writers of elementary manuals, such as S. H. Mellone—regard it as largely *inductive*, and that, in fact, modern logicians generally regard induction and deduction as two complementary aspects of one and the same type of logical thought. His own distinction amounts to stating that induction contains an explicit reference to sensory experience, whereas in deduction such a reference is only implicit. The distinction is not, however, very clearly brought out. From these illustrations, it should be sufficiently evident that the book is scarcely to be regarded as containing information which the would-be student of modern logic could implicitly accept.

The principle underlying the above criticism is simple. It is not urged that Goblot's contentions are not frequently valuable and true. The sole objection made to his work is that it is too individualistic, and that not enough account is taken of the great modern logicians whose theories are universally recognized as holding the field. He can not be said to align himself with any well-defined philosophical tendency, and his work accordingly lacks a thorough-going unity. Three tendencies are prominent, but none of them is carried through. (1) There is a sociological attitude present in the introduction, in the second chapter, and again in the fourteenth chapter—*i. e.*, a tendency to regard logic as arising in answer to social problems. Along with this goes a tendency to regard truth with its claim to necessity, as a social convention or agreement which approximates to a human universality. But this is not worked out in detail, and the epistemological problems to which it gives rise are not definitely faced. (2) There is also a psychological tendency.

⁶ The common lecture-room criticism is that the doctrine leads to "identical judgments" or tautologies. "Some negroes are men," *e. g.*, becomes, when fully determined, "Some negro-men are some negro-men." Other *logical* criticisms in the literature are to be found, *e. g.*, in Erdman's *Logik*, 2d edit., pp. 352 ff.; W. Nedich in Wundt's *Philosophische Studien*, III., pp. 157 ff.; Welton's *Manual of Logic*, I., pp. 200 ff.; Joseph's *Introduction to Logic*, pp. 198 ff., etc.

Logic is regarded as belonging to the "psychology of intelligence," on the ground that the belief that a statement is *true* influences our actions. With this is connected the "substitution of the imperative for the indicative" mentioned above, and a tendency to regard ideals as ultimately psycho-physical. He maintains, *e. g.*, like Hobbes and Spinoza, that a thing is *good* because we want it, and not that a reasonable person should want it because after rational deliberation he decides that it is "good." This psychological tendency, however, is almost entirely without influence upon the main body of the work (chapters III.-XI.). (3) Finally there is the interest in a "teleological" logic, to which reference has already been made; but this also is hardly worked out in detail. We are thus left with the conviction that the book is little more than a collection of detailed attempts to deal piecemeal with groups of problems usually regarded as falling within the province of logic, but that the treatment is neither in a line with recent work on the subject, nor in itself perfectly unitary and consistent. On many detailed questions his conscientious and careful study often results in a satisfactory clearness, but, taken as a whole, the book is disappointing. No large and clear-cut aim has been achieved.

RUPERT CLENDON LODGE.

JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. January-February, 1919. *Les fatigues sociales et l'antipathie* (pp. 1-71): DR. PIERRE JANET. - A study of the social conduct of the nevropath. *Claude Bernard et l'esprit expérimental* (pp. 72-101): RAYMOND LENOIR. - The methodological and philosophical conceptions governing the work of Claude Bernard form a protest of lasting value to the extremes of positivism, and illustrate the persistence of the French philosophical tradition that philosophy is reflection on science. *L'ère de l'ingénieur pénal* (pp. 102-130): ALBERT LECLÈRE. - Contains a discussion of the relation of criminality and insanity, and a programme of work for the "penal engineer." *Etude Critique. La logique de M. Goblot*: ANDRÉ LALANDE. *Analyses et Comptes rendus*. Ed. Abramowski, *Le subconscient normal*: DR. JEAN PHILLIPE. Francesco de Sarlo, *Psicologia e filosofia*: FR. P. Hartley Burr Alexander, *Liberty and Democracy*: LUCIEN ARRÉAT. *Revue des Périodiques. Nécrologie*: M. GASTON MILHAUD.

PSYCHOLOGICAL BULLETIN. July, 1918. *The Obtaining of Information: Psychology of Observation and Report* (pp. 217-248): G. M. WHIPPLE.—Forty-five conditions affecting observation are discussed. *General Review and Summary: Reading* (pp. 249-250): E. H. CAMERON.—A review of 12 articles on reading printed in the past two years. *Special Reviews: The Stanford Revision and Extension of the Binet-Simon Scale for Measuring Intelligence*: L. M. TERMAN and others; *A Scale of Performance Tests*: R. PINTNER and D. G. PATERSON; *The Picture Completion Test*: R. PINTNER and M. M. ANDERSON; *The Mental Survey*: R. PINTNER, FRANK N. FREEMAN. *Notes and News*.

Higier, Heinrich. *Vegetative Neurology: The anatomy, physiology, pharmacodynamics and pathology of the sympathetic and autonomic nervous systems*. Translated by Walter Max Kraus. New York and Washington: Nervous and Mental Disease Publishing Company. 1919. Pp. vii + 144. \$2.50.

Miner, James Burt. *Deficiency and Delinquency: an interpretation of mental testing*. Educational Psychology Monograph No. 21. Baltimore: Warwick & York. 1918. Pp. xiv + 355. \$2.25.

Reely, Mary Katharine, editor. *The Book Review Digest*. Volume XIV., Reviews of 1918 books. New York: H. W. Wilson Co. 1919.

Richardson, Roy Franklin. *The Psychology and Pedagogy of Anger*. Educational Psychology Monograph No. 19. Baltimore: Warwick & York. 1918. Pp. 100. \$1.25.

NOTES AND NEWS

ATTENTION is called to the "Report of the Psychology Committee of the National Research Council" by Professor Robert M. Yerkes, printed in the *Psychological Review* for March, 1919. It is a detailed account of the technical assistance given by psychologists to various branches of the service. The following paragraphs are from the end of the article:

"The eager and effective cooperation of psychologists in professional war work has enabled the Psychology Committee to win the confidence and the hearty support of the several scientific groups which together constitute the Research Council. Largely because of the way in which it responded to the practical demands and the opportunities of the military emergency, psychology to-day occupies a place among the natural sciences which is newly achieved, eminently

desirable, and highly gratifying to the profession. An immediate result of this improved status is the desire of the Executive Board of the Research Council to have psychology adequately represented in the permanent national organization."

"It is proposed to associate psychology with anthropology in a Division whose chairman and vice-chairman shall be chosen alternately from the two sciences, a chairman from anthropology serving with a psychologist as vice-chairman and *vice versa*.

"If psychology is to meet successfully the now rapidly increasing practical demands by which it is challenged, it must organize for co-operative endeavor in a way not thought of prior to the war. On the one hand is the imperative need of highly developed and specialized methods; on the other, the need for largely increased and adequately trained personnel. The war activities of the Psychology Committee have revealed or created opportunities whose scientific and practical significance can not be estimated. Two years ago mental engineering was the dream of a few visionaries. To-day it is a branch of technology, which, although created by the war, is evidently to be perpetuated and fostered by education and industry.

"Psychology needs therefore as never before in its history intimate associations with the more exact natural sciences, as well as with the biological sciences which are more nearly related to it. The support and cooperation of other scientists and especially their intelligent interest, are indispensable.

"For the speedy and sound development of psychology as science and as technology, the National Research Council should prove the most important of agencies. It is earnestly to be desired that the psychologists of the country may unite in their support of this national organization for the promotion of scientific research, its practical applications, and the profitable relations of sciences and of scientists."

CHARLES W. HENDEL, JR., Ph.D. (Princeton), has been appointed instructor in philosophy at Williams College.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

INSTRUMENTALISM AND MYTHOLOGY

WHENEVER, in the course of his history, man has beguiled an hour snatched from his immediately necessary pursuits to practise with and exercise his intelligence rather than some one of the other implements in which he needs to attain skill, he has asked of the world, "What is man? What has been his past, what will be his future? What is the purpose that guides him through life?" Of course, only a final philosophy could hope to settle those questions, and a final philosophy will not be possible until the spectator upon Sirius has beheld the last dying flicker of our solar system. But since man will obviously never cease to propound these embarrassing questions, we must needs seek some kind of answer; and we can find it in that very fact. "What is man?" The only really important thing about him is that he is the kind of a being who does ask, "What is man?", who knows that he has had a past and believes that he will have a future, and who is firm in the confidence that a purpose does guide him through life. How foolish, we may say, and many of us do say to-day; how foolish is this creature who persists in seeking to answer the unanswerable, to attempt the impossible! But it is exactly that which makes man what he is:

*Nur allein der Mensch
Vermag das Unmögliche.*

Were man to attempt anything less, he would not be man, but a brute; and the most interesting fact of all about him is that so often he succeeds in his attempt! It is as if his very self-confidence, his very audacity and disregard of the actual aspect of the world into which he has got, as it were, by mistake, by a kind of cosmic blunder, so amazed and baffled mother Nature that she has no other course than to grant her spoiled child whatever he demands.

Man's first and most important work has always been to arrange the universe to suit himself. Fortunately he has never let the facts of existence bother him particularly; since those he finds so often displease his fancy, he considers it much preferable to construct a mythological universe of his own, and chastise Nature until she is forced to conform to his idea of what she ought to be. Mythology or philos-

ophy (for philosophy is simply mythology grown less colorful and more respectable) serves two important functions: it enables man to create a world congenial to his own personality, in which he can build a pleasant habitation while storms rage in the rude realms of existence; and it also serves for the creation of new facts in that world of existence, for the moulding of that world to the will of man. The hostile forces of Nature are seemingly too firmly entrenched to be taken by assault from the level plains of the pluralistic and purposeless realm in which they have their stronghold. Therefore man flees to the mountain-tops, and from their vantage-points he can easily train his guns upon his foe and slowly but surely beat him back. In fulfilling its dual function, mythology can and must build a Heaven into which man may escape if need be, and draw fresh inspiration; and it must furnish him with the architect's plans of some of the celestial mansions, that he may continue building operations when he returns to earth. It must provide the incentive, and indeed the final goal of life; and it must provide the means to the achievement of some measure of heavenly beauty on the drab fields of earth.

If, then, our view of the significance of man's incurable interest in the meaning and purpose of his life be right, he is a dreamer of dreams, a seer of visions. In an imperfect world he possesses the power of envisaging perfection; though he live in the depths of Hell, yet can he ascend to Heaven and behold God face to face. And the vision he glimpses of perfection is no idle escape from the evils of life; it alone enables him to make his imperfect world more perfect. The God he finds is a God who can help him in his battles, who can and will aid him in his long struggle to realize upon earth some of that perfection whose glory in the sky has dazzled his eyes.

The question, then, is not, "Should man philosophize, should he dream dreams and make pilgrimages to Heaven?" Being human, he could not well do anything else. The question is not, "Is there a Heaven?" It is rather, "What is the best kind of a Heaven?" If man be incurably idealistic, and persist in seeing life, not as it is, but as he wants it to be, how can he make the picture he paints the best kind of a picture? If he must build mythologies, the important point is to see that the mythologies he builds are the best possible ones, and serve his interests in the best possible way. They are of value in just that measure in which they serve the two functions of mythologies. Every satisfying philosophy must aid its maker in two ways: it must enable him to control and change his surroundings, to make the actual world he lives in a better place in which to dwell; and it must furnish him with an ideal world which can make his struggles worth while, which can console him for his failures, and spur him on to new successes. It must help him to build a new earth;

but it must also aid him to build a new Heaven. Control and consolation: these are the two aspects which every satisfying mythology must have. It must answer the very concrete and pointed questions, what is there which inspires men to battle for the right, to fight the good fight against whatever they regard as evil? and what is there which makes that fight worth fighting even if we know it is foredoomed to defeat, which makes it better to have died with the right than to have been crowned for the wrong? Why has the world been fighting Germany? And why shall we regard all of our suffering and sacrifice as worth while even if, as may very well happen, none of the things for which we are combating actually do triumph?

A brief survey of history will show that what we have called "consolation" was peculiarly the aim of philosophy from the death of Aristotle to the Renaissance, while in the modern era, the German tradition excepted, men have been far more interested in altering this world for the better than in improving Heaven. In the thirteenth century men lived in Hell but were very sure of Heaven. We are certain we have made a great advance because we live in Purgatory. The Greeks, wisest of all, found it Heaven to live on earth. They realized that the most important kind of control is self-control, and that that implies, not, as our Puritan ancestry urges, self-repression, but rather self-direction, the careful and intelligent application of man's powers where those powers can and should control, and the conservation of those powers where they can and should not. But then, the Greeks are a part of our own mythology; they people our Heaven. Such an ideal is not to be expected on earth.

To-day we are apt indignantly to reject any such thing as "consolation" as a return to the terrible Middle Ages, when man was so entranced with Heaven that he forgot earth entirely. We feel that any attempt to get man to accept the universe is apt to end in his believing that whatever is, is right. Our philosophy must say, whatever is could be better, and must show us how to make it better. It must be above all things a social philosophy. And we are offered what I was about to call a very definite social philosophy, pragmatism or instrumentalism—a philosophy which raises a clarion call for social control, which frowns upon all attempts at consolation, and which comes perilously near to abandoning entirely the philosophical enterprise of perfecting the imperfect and building a satisfactory universe in which to erect a satisfactory society. With the aim of this philosophy there is no one who is not in the heartiest sympathy; and there are few who do not welcome with hope and joy the method it offers to solve some of our vexatious social problems. It is just because we do feel so intensely interested in making man's life a better life, and are so sure that instrumentalism has offered us a

wonderful tool, that we desire it to be not merely a good tool, but the best possible.

Men being natural mythologizers, and setting out to complete the loose ends of existence, inevitably supply in their visions of perfection just those phases of life which are in the actuality most imperfect. When men emphasize the power of God, they feel helpless and impotent before the forces of nature. When they have gained a little mastery, they commence to lay stress on the wisdom of the Deity. And when they acquire a little knowledge, they straightway appeal to his goodness and beneficence. Man creates the gods, not in his own image, but in the image of that he would most like to be. And what he most admires is always present in his own nature, but in a subordinate degree. Gods always bear a family resemblance to their creators, but they are always better—better in just that point which is most prized because it is rare.

This is even more evident in our modern form of mythology, social philosophy. When men set about to tell their fellows what is the really right, the really natural form of social or economic organization, they emphasize precisely those features which are not realized in their own states. Writing political philosophy in universals, as Professor Bush so well phrases it, is the best way of writing it in the imperative mood. Man can not do otherwise and remain true to his nature. Behind his every demand for change and reform he must place the authority of the universe. Tell men it would be much better for them were they to be a little less arrogant and self-complacent, and you secure small results; tell them the Perfect Man said, "Blessed are the meek, for they shall inherit the earth," and you cause millions to glory in humility. In the same way, tell men that perhaps ability and reward do not always coincide, and you make no impression; tell them that all men were created free and equal, and you bring about a French Revolution. Men possess an uneasy sense of their own fallibility, their own ignorance; they lack confidence in themselves. They are not strong enough to insist that their own ideals are right, and they can gain no hearing for them, until they are convinced that the world was created especially to bring about just what they desire. A man who has caught a vision of a better way of doing things may think it desirable to get men interested in bringing it about, but he can never inspire any real enthusiasm unless he is convinced that the cosmic processes are on his side. We may laugh at the Kaiser's assurance of the support of Gott, but let us ask ourselves whether *we* are not convinced that God, the moral law, and the law of evolution are upon the side of the Allies. Of course, in this particular case we happen to be right and the Kaiser wrong, obviously.

Take the social philosophies of Rousseau and Bentham, for instance. No one examining them to-day can fail to see that Bentham is in the main right and Rousseau in the main wrong. On the question of the rights of man, Bentham has all the facts. Men are not created free and equal. They have no inalienable natural rights. And yet when, in the heyday of the Revolution, Bentham pointed out these unpleasant facts to the French, they quite properly laughed in his face. They knew they had been born free and equal, because they were enjoying their freedom and equality at the moment. They knew they possessed inalienable rights; had they not just acquired them?

Rousseau and Bentham both had visions of a better life for man; but Bentham could have for years written volumes showing that man would be a little better off without a hereditary nobility, without the hundred and one abuses of the *ancien régime*, and there would have come no change. Rousseau told of the social contract and the inalienable rights of man which had been alienated; and his philosophy brought about the Revolution. Bentham's recommendations came from a middle-aged English gentleman; Rousseau's, from the creator of the universe himself.

Or take Marx's "scientific" socialism, as another example of the way in which man gets the universe back of his enterprises; more "scientific" than its predecessors only because more mythological. Marx did not bother with what was best, as the Utopians had done; he saw their failure, and so he showed that his particular ideal was inevitable, was a part of the onward-moving world process, and hence could not be escaped. No wonder the poor worker was cheered when he learned that in the future he had to triumph! No wonder he formed political parties to assist evolution! He was so sure that the absolute economic determinism of life had prepared for him a future of power and control that he made every sacrifice to aid the world-process. This, perhaps, is the chief value of the myth of determinism, that if we tell men they are bound to do a certain thing whether or no, they are so willing to aid nature that she seldom disappoints them. In 1914 men felt war was inevitable; and it came. If only our faith in the will of God had been as strong as our faith in the tyranny of the laws of nature, we might long ago have achieved the millennium.

To many to-day this method of securing the assent of God to all our plans seems a complicated and extraordinary way of accomplishing our ends. How much easier, they say, merely to point out the actual change we want; how much simpler to put our fingers on some particular reform, without necessarily altering the structure of the universe! Suppose we do think it wiser, for instance, to allow work-

men to share in the profits of the concerns for which they work. Why do we have to invent myths about the happy times in the Middle Ages when men lived together in joy and bliss, until the cruel capitalists descended upon the innocent workers, seized their property, and forced them to toil as slaves, that their masters, harsh, bloodthirsty tyrants, whose every act evidences selfish hypocrisy, might roll in wealth and comforts? Why do we have to talk about class-wars and revolutions, about the final catastrophe which is to be visited upon the cruel masters, and about the imminent return of the idyllic and happy Middle Ages? Why do we have to make all history revolve about this event, painting the universe, much as Augustine did, as the great theater set for this cosmic revolution?

The answer is simple. Men are made so that they have to do such things. They have to rewrite history whenever they wish to make it. They have to recreate the universe whenever they wish to change their way of life. To ask them to get along without all their machinery, is to ask the impossible. Like the bridge builder, they must erect great temporary scaffoldings by means of which to advance their permanent structure. They are so feeble by themselves that they must needs feel each step to be the last, lest they weary and fall before their task be accomplished. They must be spurred on by the vision of the New Jerusalem ever before their eyes, just over the next hillock. They must think the Celestial City is before them, that each weary effort they make to drag themselves onward is the climax of their age-long pilgrimage across the trackless wastes of time. What profiteth it to tell them that their dreams are but mirages, that the sandy desert stretches on and on into the dim reaches of the future, that no matter how great their advance the golden gates and the crystal mansions are destined to hover before their eyes ever the same distance away? They have beheld the Heavenly City, and it was near at hand.

Once again to-day the world has caught a vision of perfection, and once again she fondly hopes that she is about to realize it. We have fought this war that small nations shall secure their rights and that treaties shall be sacred, that the principles of justice and righteousness shall prevail. For us the course of history has been one long progress up to the final glorious day when mankind, in a League of Nations, shall have forever put behind it the wicked ways of its past. If we stopped to ask ourselves the question, we should probably admit that the world will be little juster or more righteous after the war than before it; and we might even deny that there is such a thing as justice or righteousness. After all, it will not be long before the ideals of nationality and the sanctity of treaties will have been superseded by something nobler and better. And yet—if we did not be-

lieve that there is a righteousness and a justice, that small nations have rights and that treaties are sacred—if we did not know that we *are* helping to make the world a better place to live in, we should never have gone to war, and we should have lost our souls. We have seen our vision, we have builded our mythology—and who will deny that that mythology is divine?

These, then, are the philosophies which actually control men: the philosophies which have caught visions, which regard them as worth while in themselves, and which spur their believers on to realize perfection in the world. Man, if he is to act at all, must believe in some absolute. He must have some ideal, valuable in and for itself, around which he can group his interests and towards which he can direct his actions. The man who is to accomplish things can not afford the luxury of relativism; he must possess some fixed truth—fixed while he is acting, at least. Men discover that some ideal is worth dying for, or, what is far more difficult, worth living for; and they accept that as a criterion by which to measure life. They seize upon a vision of universal peace, or of social justice, and they measure the imperfect world by the ideal it has called forth. Life becomes important as they can struggle toward their chosen goal; they picture the entire universe as struggling with them, and are sure their purpose is the ultimate reason for existence.

Of course, there is a great danger arising from the fact that ideals, which must be provisionally absolute, may become fixed and static—that mythology, which must be the lightest and airiest of all castles in the air, will grow leaden and sink to earth. It is so easy to imagine that Utopia is a place to live in! As a matter of fact men never realize their ideals; they only approach them. As they grow, so do their Heavens. Unfortunately, it often happens that men cling to ideals long after they have ceased to be useful instruments of progress. It is unnecessary to point out how Rousseau's mythology, which worked wonders in the eighteenth century in freeing man from bondage, worked equal wonders in the nineteenth in keeping him in chains. The rights of life, liberty, and happiness became the right to the life, liberty, and happiness of the unfortunate whom you happened to hire in your factory. And it is needless to show how Marx's myth of determinism produced, in some literal-minded souls, a tendency to refrain from all attempts at reform, in the hope that the sooner things got as bad as possible the sooner the revolution would come.

Like every keen and well-sharpened tool, the myth can destroy as well as create. But because boilers blow up, we have not abandoned the use of steam. The only safety in life is in the grave; the only safe method of social organization is not to organize at all. We can

hardly afford, merely to gain seeming security, to forget that the most pragmatic of all instruments of control are ideals.

The trouble comes in when we grow literal-minded enough to think that Utopias are ever intended to be realized on earth, that Heaven is a place to live in. Were our ends ever *the End*, then there might be justification for looking upon them with suspicious eyes. Perhaps it would be better to continue our wanderings, now in one direction, now in another, drawn hither and thither by will-o'-the-wisps, if whole-hearted devotion to any one ideal meant stagnation when it was achieved. But ideals possess their power over human souls just because they never are reached. What would be the mystic potency of the rainbow, if we could discover the pot of gold? Like the rainbow, ideals lead us on and on in our search for perfection; and though we never find the treasure, our eyes are ever toward the rising sun. We must remember that the place for the Heavenly City is not upon earth, but in Heaven; that Plato's Republic is an ideal state, to be realized only in that mythological time when philosophers shall have become kings; and that no Hell could possibly be more terrible than to have to dwell in Heaven.

Of late social philosophy has become so impressed with the real danger of the fixation of ideals which must be absolute for the moment, that it has attempted to dispense with them entirely. Frightened at the havoc absolutes can cause, it has been afraid of all principles. In one sense this is good mythology, for it is obviously elevating the imperative into universals. But this is mythology in the same sense that atheism is a religion or anarchism a theory of government. No one wishes to condone the atrocities committed by intellectual Absolutism; but neither do we desire complete Bolshevism in our social ideals. We need rather a responsible ministry, with plenty of real power, but always subject to a recall if it fails to secure a vote of confidence.

Our pragmatic social philosophy seeks to avoid all suspicion of mythology. It does not claim to have the right solution to any problem; it merely believes it has better solutions, despite the obvious fact that nothing can be better unless something is best. It talks much of criteria and values, but it preserves a discreet silence on what is good and valuable. It is so afraid of getting somewhere that it does not ask whither it is going.

Fortunately, man is much more than his systematized philosophy, and if pragmatic social philosophy has no ideals, the same can not be said of the philosophers who employ it. They have ideals, and very good ones indeed; but they are careful to keep them out of their philosophy. There is, in fact, nothing to hinder sinister forces from capturing instrumentalism, just as they captured that other formal-

istic system, the Kantian two-world view, and filling in the method with dangerous ends of their own.

The only positive ideal we have allowed to creep into instrumentalism is that of Control. We are formulating, we say, a philosophy of social control; we can not become interested in what our fathers used to call principles, for we realize that the best thing to do in any particular case depends entirely upon the specific situation. Give us an actual problem, and we will solve it for you. If you press us, we do have one aim: that is to control and guide men, that in every case we can lead them the better way. We don't know just where we are going, nor exactly how to get there; but we do want to be in control. Instead of loyalty's loyalty, we offer control's control. And so we go careening down Niagara, heedless of the cries of the watchers on the bank. It's all right, we call back; can't you see we have control of the tiller?

The most obvious point about our ceaseless cry to-day for social control is, that, like all good mythologizers, we are calling for what we do not possess. Were we actually able to direct the forces of society into what channel we would, we should be so busy choosing that channel that we should entirely forget that we were directing. The really powerful do not talk about power; they talk about what they are going to do. Only invalids consider their health. We must remember that Bacon, from whom we derive so much of our inspiration for control, held forth the ideal of "extending the bounds of human empire, to the attainment of all things possible," because they were so very, very narrow. In Bacon's day science was in its infancy. Our modern scientists do not talk about controlling the universe; they are too busy removing mountains and dividing continents. When we tell ourselves that we hold within our hands the key to the forces which guide our destinies, it is safe to assume that we have failed to improve man's lot and make the world a better place to live in. When men set about proving the existence of God, they have ceased to walk with him.

If there is any philosophy in the world to-day which has actually controlled, it is the intensely mythological and absolutistic *Staatsphilosophie* of Germany. It did not need to talk about control; it could spend its time on the state and *Deutschtum*. That philosophy we have been opposing; but we have opposed it, not with our philosophy of control, but with one which actually does control, not with pragmatism and experimentalism, but with the ethical idealism we have inherited from our Puritan ancestors. It is not with control that we have combated Prussia; it is with justice and righteousness and liberty and democracy. These are the things men are willing to die for.

Unfortunately, it is not merely that we have become so absorbed with the machinery as to forget the boiler. That would mean only that *we* were not succeeding in *our* enterprise. But man will still build mythologies, though we help him not; and the great danger is that those he builds may resemble that which ruled in Germany. It is all very well to wait for the particular problem to arise before we consider a solution; but unless we have coordinated those problems into one whole, unless we have some general notion of whither as a race we ought to tend, our movement is far more apt to be backward than forward. We are groping in the dark, for we have extinguished the great beacon-light of Truth and Right, writ with capitals; since we have only the flickering candles of little less-falses and betters to show us the way, it is no wonder we find the path strange and full of obstacles.

It is the part of relativism to criticize the mythologies of the past, to prune away the ideals which, no longer serving their original purpose, are working evil instead of good. This is a service which will always be necessary, to offset the dangers of a literal-minded acceptance of mythology. But unless we have something more than that, some new vision of perfection to spur us on, and unless we are convinced that that perfection is worth while for its own sake, we can not hope to aid in social improvement. Pragmatism and experimentalism are admirable instruments for the criticism of old and outworn myths; but to-day the world is clamoring for new visions. To-day the demand is for social reconstruction. It behooves us to consider carefully whether it is not time for us to supplement our excellent method with as excellent a mythology, that we may really guide and control mankind in the new age.

So far we have followed the current of modern thought, and tacitly assumed that it was right in demanding that all philosophy be social, that it be an instrument for the bettering of man's lot and the improvement of his life. We have granted that the aim of philosophy to-day is to control the various factors which make the best life possible; our plea has been that we have mistaken the means, somewhat. But we have already seen that this is but one side to man's mythological completion of the incomplete. Without denying the primary importance of this aspect, let us approach man the myth-maker rather as the dweller in Heaven than the toiler upon earth.

We have found that our control-mythology expresses an ideal, and is not any description of life to-day. But, like all ideals, this too belongs in Heaven, and not on earth. The physical basis of life we shall never be able to change; birth and death, sorrow and pain, will remain. Fortunately, also, we shall never be able to control

more than a small part of our environment. Suppose that the boasts of modern pseudo-scientists were fulfilled. Think what a horrible universe it would be were man able to improve upon the law of gravitation, and put the moon upon a more convenient schedule! We are to-day waging a terrible war because we have learned too well to put the secrets of nature to our own base uses. Could Bacon behold the diabolical products of our New Atlantis, he might well turn his face away in shame. As it is, we seem quite able to destroy the human race. If in our present mood we should gain control of the entire universe, we should probably hurl solar systems at each others' heads and involve whole constellations in our ruin. Or suppose that we should succeed beyond our wildest dreams in that far more difficult task, the control of mankind. Cosmic disintegration would be preferable to the sway of a Controller of Public Opinion, and imagination palls before the power of that supreme Czar, the Happiness Controller.

We control entirely too much, as it is, of our universe. We must learn self-control before we set about governing the stars. What profiteth it a man if he gain the whole world and lose his own soul?

Fortunately, there is so much of existence which must be accepted, whether or no, which is beyond our power to change in the slightest, that the small portion left over may be not unsuited to our limited capacities for direction and change. But in the main, our ideals are never realized; our ventures always fall far short of our hopes. Again and again we fail, and even those who, measured by our standards, have achieved the greatest success, have in their own eyes failed most terribly. The most successful men in history were Socrates and Jesus; but they were also the most magnificent failures.

Failure, imperfection, what we have traditionally called "evil," being the way of the world, it is for our mythology to recognize that man's powers of controlling his environment are after all extremely limited, and to enable him to accept the universe, not resignedly, but joyously. The chief glory of the Middle Ages was the sublime consolation offered to men's bruised souls. It has always been religion's inestimable contribution to human life to show how good may come out of evil; but it has far too often been her failure, that she let that good justify the continuance of the evil. If the danger is great in employing a mythology of control, it is no less in a mythology of consolation. We catch a gleam of hope in an intolerable situation, and we are all prone to let God, or evolution, according to our particular theology, bear the brunt of the responsibility for its alteration. It is such a temptation to apply a mythology admirably suited for securing self-control and consolation in the face of the inevitable, where we might change things for the better if

we were only to try. Here again we must avoid both Scylla and Charybdis; for instance, the world would undoubtedly have gone mad if it had discovered no redeeming features in war, yet it will inevitably go mad if it allows that mythology of consolation to become a mythology of control, and allows wars to continue.

It is to the philosophical enterprise that we must go for a solution. Were existence nothing more than the loose ends we find, one succession of failures, then indeed Hegesias would long ago have been the final philosopher. But man seeks a purpose, a meaning, a worthwhileness in life, and failing to find it round about him, he is impelled by his very nature to invent it and impose it upon the world. Unable to beautify earth, he builds Heaven, and is willing, for the sake of that Heaven, to bide his time in suffering until earth has grown more amenable. He seeks consolation in his ideals, he dwells in the house of the Lord; and there he secures spiritual strength and fortitude, and the power of self-control necessary to the weathering of the blasts of life: unshaken by the evils which he can not avoid, he conserves his energy that he may direct it wholeheartedly against those which he can eradicate. We *must* believe that there is something which makes it all worth while, something of intrinsic value which compensates for all our lack of success. And that something we all of us find in our Heavens. Even the most relativistic of experimentalists has a Heaven, a vision of perfection, to attain which no suffering is too great.

It is true that our mythology differs from the religious mythology inherited from the Middle Ages. In those days, despairing of the world, men placed perfection after death. We place it in the future still, but we hope for the millennium to come upon earth. Both views are mythological, because both assume that perfection is a thing which either does exist now somewhere in the skies, or that will exist sometime in the future. We have not yet learned that it is not in the nature of perfection ever to exist.

The peculiar form our mythology takes to-day is in placing happiness as the end of man, and then believing that it can be increased quantitatively. I suppose there are none of us who would disagree with Mill's Utilitarian principle of the greatest happiness of the greatest number, especially since happiness is a term of such vague content that it can mean almost anything. We believe that this should be the aim of society and of social control; this is our Heaven, and it is in visions of the days when this goal has been attained that we seek consolation from the unhappiness of the present and find inspiration to alter conditions for the better. We imagine that it is possible to increase man's happiness by improving his life. We believe in the myth of progress. We are willing to suffer and die,

if need be, that our visions of social justice and a harmonious and happy world may become realities. This is the spirit with which our doctors, our reformers and social leaders, our armies on the field of battle, our mothers and sisters and wives at home, are enabled to fight the fight for their ideals. What matters it, we say, if you or I or any individual falls and is vanquished; there will always be others to carry on our work and see to it that the ideals we were not able to fulfil shall be accomplished. When the happy day comes when the cure for cancer has been discovered, when the social revolution has taken place, or when international organization has been accomplished, then we shall receive our recompense in the increased happiness of mankind. We are content to fail personally if only we feel we have helped to build more of a Heaven on earth.

And we should know, if we cared to reflect, that this is all mythology; celestial and divine, yes, but nevertheless mythology. For we know that man will never be any happier than he is to-day. Measured in terms of happiness alone, the Greeks were as happy as we are, and the cave-men as happy as the Greeks; for it is a subjective thing, an attitude, and has very little to do with externals. Those who have every boon of life are often most unhappy; while those who must struggle most are often the happiest of men. It is folly feverishly to undergo one hardship after another in the hope of that distant good, when we might have it here and now for the asking. Happiness is valueless if we must wait for a perfect world in which to enjoy it. Whatever advantage our myth of paradise on earth may have over our father's myth of paradise in the sky is certainly not due to greater scientific accuracy.

Behold the result of our refusal to examine the myths we do believe in! Our pragmatic mythology, which consists in a profound faith that we shall succeed in controlling, and that very shortly, may be a good mythology in spurring us on so long as we do succeed; but there will come a time, sooner or later, when we shall fail, and when we shall realize that though perfection is, yet shall it never exist. Brought face to face with the fact of war, for instance, we shall suffer all of the bitter disillusionment of the ascetic who sees his materialistic heaven crumble before his eyes; and as it is folly for him to seek happiness only after death, so is it folly for us to seek our Heaven only when we have attained a perfect world. We who pin all our hopes on being able to control, must realize that the true instrumentalism would know how to fail, would succeed all the more in controlling men's souls when it could not control their environment.

No, our consolation, our happiness, must be sought neither in a mythical state far distant in space, with the Middle Ages, nor far

distant in time, with our later ages. If we are to find it at all, we must find it here and now, in the midst of all the imperfections and evils which exist around us. We must find our Heaven where the Greeks found theirs, where Plato found his, in the blue sky above us. We must see our visions of perfection, and consider them worth while in themselves, independently of whether we succeed or fail in the battle to realize them. The value of the sacrifice of the millions killed in this war, and of the millions more who have given the best of their lives that certain things shall prevail, in no wise depends upon whether those things do prevail or not. Who of us will say, that had Germany conquered, these sacrifices would have been in vain? or that, if, though Germany be defeated, her principles emerge triumphant, the hardships undergone by the world will have been proved futile? And what holds true of the peculiarly dramatic sacrifices of war is just as true of the no less painful and significant sacrifices of peace. Far from being less glorious, sacrifices which fail to succeed in their purpose, which we fondly call "in vain," are even more noble than those which are successful. For the latter secure their reward on earth, while the former gain theirs in Heaven.

Progress, then, is a myth; that is, it has no existence on earth, but belongs to the realm of ideals, to Heaven. It is not measured by what man does to his physical universe; it does not consist in the increase of the general average of happiness in the world. In Mill's famous repudiation of Utilitarianism, and indeed of Hedonism, "It is better to be Socrates dissatisfied than a pig satisfied," the difference is not on earth, but in Heaven. The discrepancy is not between contentment and discontent, but between plenty of mud and swill and the city in the sky, between the perfect pig-pen and the perfect state. Though we be no happier to-day than we were a thousand years ago, we know we are "better off," that our life is a nobler life, nobler in just that measure in which our ideals, our visions, our Heaven is better. We do not want to secure justice and right for the workers in order that they may be happier, but that they may dream nobler dreams. The aim of all our efforts at controlling the factors which make a better physical life for man possible is progress in Heaven.

Happiness, then, is not a state possible only when we have secured a more equitable social organization. It comes, not when we have attained our ideals, but in the very act of struggling and working for them. We are happy only when we have a vision of a better life for man, and set to work to make the world more like our vision. We must believe in our ideal, heart and soul, think that it is the only important thing in the world; and in moments of

struggle we must even accept it as an absolute and hope to realize it actually. But in more reflective moods we must realize that that ideal can never be attained, simply because by the time we have made the life of man a little better by our action we shall have caught a new vision; that is the only criterion of progress. Our pilgrimage will be a long and a hard one, marked by many a failure upon earth; but no sincere effort can fail to take its place in Heaven, where it will cast a radiance of glory over all succeeding visions. We use our ideals to improve the natural basis whence they have sprung; and in its turn the better social conditions give rise to new and better mythologies. The process has neither beginning nor end; it is one continual improvement of Heaven. And when we fail, as we often must, when all looks black around us, and our efforts seem in vain, we can control ourselves and bide our time, in the absolute knowledge that whether we succeed or not, it is better to have died with the right than to have conquered with the wrong. In the noble words of Giordano Bruno:

*E bench' il fin bramato non consegua,
E 'n tanto studio l'alma si dilegua,
Basta che sia sì nobilmente accesa!*

If our reading of the book of life be correct, we have found a mythology a little more in accord with the actual way in which man approaches the obstacles besetting his path than the prevailing experimentalistic mythology. We instrumentalists have not examined carefully enough the natural basis of our ideal of social control. We have caught a vision of a better life, a life in which Reason shall harmonize and coordinate our actions. We have found the crying need of the world to be some method of bringing about those changes of whose necessity we are so convinced; and we have developed a method which bids fair to succeed. Individually, we have our ideals; and we have nearly achieved a remarkably effective means of approaching them in the social structure. But let us not forget that the driving power of our movement is its ideals, its mythology; let us make our pragmatism more pragmatic, and our instrumentalism more instrumentalistic, not by disclaiming all Utopias, all provisional absolutes, but by recognizing them as the one great phenomenon marking man off from the brute. Let us preserve our experimental methods of achieving what we have decided is worth achieving; but let us remember that our guiding and directing must be towards the Heavenly city in the sky. And, lest we despair at our ill-success, let us not forget that the only true progress must take place in Heaven, and that even if our sacrifices avail nought towards making our nation a better nation, there is

not one which does not build a new mansion in the golden streets of Zion.

This, then, is the conclusion to which we are brought by our consideration of man as the animal who asks "What is man?" who builds new worlds and new Heavens. Man, grown philosophic, can, nay must, accept the universe; not for the crude thing it is, but for what he and his fellows can make of it. He must accept it for the sake of the ideals it calls forth from him, for the wonderful opportunity it affords him to dream his dreams and make them come true. Satisfied and contented he can never be, for the attainment of one Utopia will find him longing for the next. But he can and must find his happiness in the very act of struggling for a better life. He must find it in the myth that he is helping to make others happy in the future; but he must recognize that their happiness will be as his, and that they will find it in improving life even as he has found it.

Man, grown philosophic, will know when to control conditions and when, in the face of the inevitable, to control himself; he will know that the world is a wonderful place to live in because it does offer him the opportunity to find Heaven, and through Heaven to make a new earth. He will not seek, with the monk, to withdraw from life in the fond hope of attaining an impossible Paradise; but neither will he give up the search. He will see the possibility of Paradise on earth, the perfect in the imperfect; and he will set out to guide and direct mankind to better things. His program for action, his ideals, he will find in Heaven; and his Heaven he will find in working for his ideals.

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THE OBJECTIVITY OF PLEASURE

THE history of the development of thought is in large part the story of a search for more suitable standards. The most obvious standard would seem to be a personal one, for it appears to be ready-made and always accessible. Soon, however, the individual finds it difficult to get along in a world where there are as many standards as standard bearers and he is forced to inquire whether there is not some one criterion by which all others may be measured.

Something like this has occurred in the history of hedonism. If pleasure was the ideal then the ideal was easily recognized, for did not every man know his own pleasure? In order to recognize a pleasure was it not necessary to occupy the unique position of the individual who was experiencing it?

Almost at the beginning of hedonic speculation, indeed, we find attempts to discriminate among pleasures, positing some as more desirable than others. There was an attempt to instruct others as to the greatest pleasure rather than leave this to the independent discovery of the individual.

In few respects, if any, has the hedonistic philosophy passed beyond the stage to which it advanced in the Græco-Roman period. The theological hedonists pointed out that posthumous pleasure was the pleasure to be preferred above all others; the utilitarians sought to escape the selfish tendency by pointing to the pleasure of all as the ideal, as that which must be preferred by all ethical beings to any individual pleasure; the psychological hedonists have argued an inevitable choice of pleasure. Yet little help has this been to ethics.

In recent speculation about the ethical value of hedonism we find much striving after two things: pleasure *and* an ideal. It is marked in John Stuart Mill who insists that poetry is better than push-pin and Socrates than a fool, irrespective of the pleasure connoted by the experiences; we find this striving to secure both pleasure and an ideal in Sidgwick, in Rashdall, and, to some extent, in Everett's recently published *Moral Values*.

One has the feeling that the problems as formulated by these writers do not permit of a solution. Yet the problems may be soluble and their divergence may disappear if these two things, pleasure and ideal, can be put into the same category and so made transposable equations. It seems clear that no solution can be hoped for so long as pleasure is viewed as an unique and irreducible experience.

The trouble comes—does it not?—from our tendency to insist upon this individual and irreducible character of pleasure. In order to get rid of this difficulty we propose a definition of pleasure in terms that admit of comparison and so of valuing.

We must forthwith forego all psychological twaddle about pleasure being merely pleasure and not to be judged, as regards the element of pleasure, save by the individual experiencing it. Of course this is true, as it is true of his experience of a star, a picture, or an intellectual process. But the truth avails nought for him, for us, if pleasure can not be expressed objectively.

We must be able to know not merely that a pleasure exists for him: we must be able to know that what he accepts as a pleasure is one or is not one, as the case may be. His judgment is not sacredly and invariantly true just because it is a judgment about his own experience. He may mistake and accordingly misrate a pleasure of his own experience as surely and as disastrously as he may feel an ache in a premolar when the trouble is really with the molar.

His surety and the immediacy of the experience is no guarantee of its truth. He is not the infallible judge of whether or not he is experiencing pleasure.

The hedonistic paradox is a partial recognition of this duality of judgment, for it insists that pleasure is wont to disappear as soon as a man consciously strives for it or even introspects in order to discover whether he is experiencing pleasure. The "paradox" comes from the fact that we have failed to take into account two processes which are entirely separate and might not be united in the same individual, namely, pleasure and the consciousness of that pleasure.

As it is not essential to greatness that a man be conscious of greatness, or to philanthropy that he be conscious of his philanthropy, so it is not essential to pleasure that the man realizing it be conscious of that pleasure. If the pleasure is great, or long continued and involving many phases of his life, it is probable that he is not conscious of it. The converse is true. He may think himself seething in pleasure when he is not remotely near it—as an example, the hilarious but feeble drunkard. He who is judging best is often other than he who is judging self. To this the realm of pleasure is no exception and should be none.

The existence and the nature of my pleasure is, then, a matter of which I am judge but not sole judge, and, possibly, not even an exceptionally able judge. I may not be in a position as advantageous for pronouncing judgment as are others who have a more comprehensive grasp of the situation and can analyze it better than can I. To their greater wisdom my lesser wisdom must pay homage.

Subjective pleasure, to acquire meaning for us as a workable concept in ethics, must become objective, a something upon whose quality we, the outsiders, can pronounce. This means that we must be able to define pleasures so as to make the concept usable—a quality that can scarcely be claimed for it at present.

To this end we propose, tentatively, to define pleasure as the doing of a thing for its own sake. The remoter implications may raise more questions than are thereby answered and create difficulties greater than those that are vanquished. Intoxication, when for its own sake, is, therefore, a pleasure. Yes, so far as we consider this bit of life or experience as an isolated bit or as a totality. But if the experience fits in with a larger experience, the day with a year, the question whether it be pleasure in view of this larger sphere is open to question and must be answered by the same test. There are, to be sure, false views of things which should be done for their own sakes, and so there are false as well as true views of pleasure.

True pleasure, then, is not so much that which is, as a matter of fact, done for its own sake, but is rather that which, all things being considered should be done for its own sake. How we are to determine this "should be" is another question, and one which is no part of our immediate task.

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DR. GOLDENWEISER AND HISTORICAL INDETERMINISM

OF Dr. Goldenweiser's "Set of Categories for an Introduction to Social Science" the most significant to a philosopher must be his pair "deterministic" and "accidental." If one's philosophy depends in some measure on the results garnered by the sciences, and if the social sciences find themselves compelled to interpret cultural history by the latter of these two categories, then it would seem that the ideal of a completely knit universe, however attractive it may be, is not confirmed by scientific evidence. In the inorganic realm, even perhaps in the field of biology, that ideal may be approximately verified, but in the arena of human culture it would appear to be too narrow and one-sided to be philosophically valid. At least, this conclusion is just if these categories are taken seriously and objectively. I do not forget that Dr. Goldenweiser is careful to define "accidental" so as to imply no real indeterminism;¹ he adheres to a philosophic platform which would not permit that (*cf.* pp. 564-565). I mean only that if the reader were to neglect the author's philosophy and attend to his scientific results alone, and use those results to build up a philosophy, he would have one which, admitting on the whole a system and order, yet allowed a certain free play and spontaneity of action between the parts. For the author shows most cogently that social science can not proceed (as apparently physics and chemistry can do) without using the concept of "accidental" as well as "deterministic." It needs both. He says at the end of his papers "thus the accidental and the deterministic appear as two inseparable ingredients of the historic process" (p. 607). And if that is so, then the one category should be granted as good an objective status as the other. There appears no reason why the philosophy of human culture should adopt the one, and relegate the other to the limbo of superstition.

Let us trace the course of the exposition as it brings out the inevitableness and the significance of both "deterministic" and "accidental" factors in cultural history.

In contrast with those who would see in history no laws, but only

¹ This JOURNAL, Vol. XV., p. 565.

unique individual processes or acts, he declares that it is useful to align cultural processes in deterministic series: "an analytical separation for heuristic purposes of the deterministic from the accidental factors in history, tends to throw a great deal of light on the proper sphere of each, as well as on their interrelations" (p. 590). Examples of determinism are: the survival of an institution whose emotional or intellectual content is lost, *e. g.*, "marriage by capture, which from a grim reality becomes a mere puzzling symbol, or magical rites which evolve into children's games, or prayers which are not even suggested by a set of nonsense words" (p. 592), *etc.* "The principle of division of labor also belongs here. Take a group of individuals with certain tasks to perform, and sooner or latter specialization . . . and division of labor will set in" (p. 592). Or again: "Development in a certain direction will often continue, according to the principle of inertia or the line of least resistance, until a physical limit is reached or a psychological limit, which makes the situation absurd or self-defeating; then reaction sets in, 'opposite' developments come into favor, the pendulum swings back, perhaps only to return with a similar exaggerated sweep" (p. 593). There are also "tendencies which spring from the coexistence and coordinated functioning, in varied situations, of individuals in different degrees of socialization. Illustrative of such principles is, for instance, the universal emergence at all times and in all societies of leaders, strong men, dominant personalities, with reference to whom the remainder of a group appears as followers, inferiors, supporters, disciples" (p. 599). (Dr. Goldenweiser's account is full of interesting examples.) Now it seems as if we might well call these "determinisms" by the sacred name of law.

But these laws are not rigid in the sense that they allow much prediction; "the determinisms do not, in themselves, constitute a guarantee that anything further will happen" (p. 596); they only assure us that "if anything further happens . . . it will be one of a more or less restricted set of events, inventions, ideas, or it will fall within the limits of a certain range of possibilities" (*ibid.*). In spite of this hypothetical character, the reader can find no ground for refusing the full dignity of law to these "tendencies;" inasmuch as all law, even in the exact sciences, is confessedly hypothetical.

Having then to all intents and purposes defended the category of law in history, the author goes on to establish the counter-category, accident. Once more he warns us that he means by it no uncaused factor: "an accidental event or thing is one normally belonging to another system of preferential relations than that in which it makes its appearance in the particular instance; from the standpoint of the latter system the event or thing is accidental" (p. 599). Thus

"from the standpoint of the North African natives the advent of Mohammedanism was an accident; so also was the Spanish introduction of the horse among the Indians of the Plains . . .," etc. (p. 599). After further illustrations we come to the most interesting case, that of the relation between the individual and his environment. The accidental quality of the individual consists in the fact that, though a reflection of the cultural *milieu*, he is a *selected* reflection; he has "congenital capacities and limitations" which enable him to participate in some aspects, and make him "powerless to assimilate" others, of that *milieu*. Also "the reaction of the individual to any particular cultural material which confronts him depends on his attention, interest, his assimilative readiness, the value or significance which the new item of experience has for his *ego*, all of which factors again depend on the totality of his past experience, on his biographical *ego*, on the particular and unique configuration of the psychic individual as a historic complex *sui generis*. . . . Thus, the individual emerges as a highly adventitious aggregate of psychic elements and dispositions, unique and unforeseeable, except in its most general aspects" (p. 602). And "the ingress of the individual as cause into culture as content, or history as process, must therefore always appear as the crossing of two relatively independent systems, and the exact time, place and purport of that crossing must be recognized as accidental, as unforeseeable, except within certain most general limits. While this would be so even though the individual were nothing but the exact replica of his culture, the fact that this is precisely what the individual is not stands for the added significance and the ever indeterminate possibilities of his breaking into the chain of historic events" (*ibid.*). Now let us recall that according to Dr. Goldenweiser—and I think he is right—the individual is not a process or entity *outside* his cultural environment, but quite within it; does it not follow that that *milieu* contains *within itself* as many fortuitous processes as there are unique individuals? He says: "Unquestionably, the specific content of the individual psyche is derived from the cultural *milieu*—where else, indeed, should it come from?" (p. 601)? Accordingly, that *milieu* would appear to be a complex process containing many contingent factors, as well as general tendencies following certain laws; and these contingent factors are not due to the crossing of that culture with systems external to it, but to its own constituent elements (individual persons). This impression is confirmed by his later words. "The driving power, the 'yeast' of history, is supplied by various accidental factors, in origin individual, or socio-psychological, at any rate, external to a given system. Not that these accidental factors must of necessity fall into the 'foreign contact' group. If the culture is at all complex, the processes of cul-

tural self-fertilization through interactions between smaller systems included in the cultural group or nation are quite adequate to supply the 'yeast' themselves. Among these smaller systems the individual is one . . ." (p. 605). The action of this yeast he compares to "the breath of life, whipping into shape the heretofore unrealized possibilities of the deterministic tendencies. . . . Thus the accidental appears, after all, as predominant in history, when it comes to the particular *when, where, how, and even what*, of events. The concept of the 'uniqueness of historic events' is thus vindicated" (p. 605). The accidental or contingent is found in "the maturing of certain elements *within a system*" (*ibid.*, italics are mine). "But withal there is no denying the overwhelming weight of accidental factors" (p. 606).

Although he probably would not grant it, has not Dr. Goldenweiser here given us the best scientific evidence for a philosophic indeterminism (in this field only, of course)? The inevitableness and significance of "unforeseeable" novelties cropping up *within* a social system, and therefore neither determined from without nor (by his definition) resulting from that system itself—the inevitableness and the significance of the accidental factors appears, as we read through his discussion, with steadily increasing clearness. Quite apart from the genuine merit of his discussion as a contribution to the philosophy of science, this result should engage the serious attention of philosophers.

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REVIEWS AND ABSTRACTS OF LITERATURE

Moral Values: A Study of the Principles of Conduct. WALTER GOODNOW EVERETT. New York: Henry Holt & Co. 1918. Pp. xiii + 439.

Professor Everett's *Moral Values* suggests an old conundrum, *mutatis mutandis*: When is a text-book not a text-book? The answer, of course, being: When it is really readable; when it has movement and unity and other things that according to the best principles of rhetoric make for vital interest; when it lacks obvious method and arrangement; when, finally, it lives, instead of just presents, its subject. A text-book thus not a text-book is what Professor Everett has both consciously planned, to judge from his Preface, and with more than ordinary success really accomplished, to judge from the dozen, baker's dozen—in the good old times!—chapters that follow. In fact, except for an occasional excess of the

preceptual, a wiser; on the whole more readable and generally more serviceable book for university classes in ethics would be hard to find: for, with the other merits, this is a book that very well might interest, I will not say the general reader, but certainly the thoughtful reader, the general thinker; and it is a book, too, that while not doing violence to the demands of history is up to date or "progressive," being at once idealistic without being either narrow or abstractly moralistic, and pragmatic without being at all materialistic. Surely such a book has peculiar opportunity of being useful to the universities at this time.

Besides the freedom from the character of the conventional textbook, two other things, also announced in the Preface, may be mentioned with an approval almost as cordial; namely, the appropriate and especially the well-controlled use of the concept of value and, closely related to this, the purpose of being concrete.

Ethics and logic are both often defined as normative sciences. But, while thus in the same general class, they may not be regarded or presented in the same manner, being as far apart as will and thought, volition and cognition, value and idea. True, as many disasters, now meaning books, which time has presented to the history of thought, bear witness, each has had need of learning of the other. Works in ethics, for example, have often been obtrusively lacking in practise as well as in precept of logical form, being quite too—Oh, for an adjective!—too valorous, too well-meaning, too "moral," while works in logic have on their side overdone the dependence of thought and its manner on value, being too psychological, too biological, too pragmatic; but the fact that ethics and logic have needed to learn of each other is no justification of such inversions as have taken place frequently. Professor Everett's work, however, while well constructed, while itself fundamentally logical and while recognizing the great importance of knowledge and reason to moral experience and development, is no inversion, being always mindful that its primary interest is in the will and in the world as value. Witness its own persistent and pervading spirit of moral earnestness and purpose; not its sentimental moralism, for it is very largely free from that, but its genuine and candid ethics. Witness also its respect for the concrete.

With regard to the purpose to be concrete, when one comes to the actual performance there is perhaps something wanting. Some readers may feel a real lack. One does not find, for example, much direct special discussion of concrete problems, such as appears in Drake's *Problems of Conduct*, particularly in the portions given to "Personal Morality" and to "Public Morality," where questions of health and drink and sex, of patriotism and charity and privilege,

are examined. What one does find, however, is a clear, well-pointed philosophy of concreteness, making the book, so to speak, open to problems as concrete as you please. What Drake's book has lacked in the opinion of many is just such a background.

In the interest of the concrete Professor Everett denies finality and exclusiveness, say, moral adequacy, to any of the traditional formulæ, or *summa bona*, such as pleasure, happiness, duty, perfection. At best, he says (p. 177), these are only "principles to point the way one is to go." Singly or collectively they decide nothing. They "do not free one from perplexity where ways converge and cross." "Ethics," he goes on, "in striving for unity of thought, can not neglect the manifold which it would unify. . . . The abstract must be interpreted in terms of the concrete, the good must be translated into goods, value into values." In other words, the world of actual moral experience, the world of value, is no unified world; it is rather, after James, a "pluralistic universe," and one may not meet it successfully with a single, exclusive formula or rule. In practise a moral principle would stand in the way of real moral principle. A man of principle is so much better than a man of a principle; so much more reasonable and responsible, so much more efficient, so much more human; in short, so much more a man for the world as the world is actually experienced.

In place of any *summum bonum* or universal principle, Professor Everett offers, first, a "table of values," and then what the present reviewer would diagnose as a genuine trust in common human nature. History and experience being what they are and man being what he is, man being disposed in general to learn from history, to be made self-controlled and rational by his experience, human nature can be trusted to react, for character and progressive living, to the values that the world offers. Indeed, as Everett hardly makes as clear as might be wished, those very values are themselves outgrowths of experience, making a confidence in experience and human nature so much more justified. Thus, now to the table, under a broad interpretation, the only practical interpretation, morality is a matter not merely of the ordinary "character values," but also of economic values, bodily values, values of recreation and of association, and of esthetic and intellectual and religious values, these all making the "world of values." To this table, or list, of course no absolute value can attach. It is simply something to work or think by. No sanctity inheres either in the order or the number of the different values. Even the division may be a cross-division. But it is of the nature of man under the demands of his life, as his experience grows, to come to recognize and follow a hierarchy of values. Instrumental values are subordinated to intrinsic, transient to perma-

ment, productive to unproductive, and so on (p. 221 ff.), reason acting throughout as the principle of preference and organization (p. 224) and the outcome being an organically valued world and a moral, because controlled and adapted and harmonious, individual. The process, moreover, is seen not as different but as only more efficient and more productive, as well as at once more complex and more comprehensive, when it is recognized that "no values can be realized by individuals in isolation" and when accordingly due attention is given to the part of society (Chapter VIII.).

But, not to attempt further exposition, it is interesting to find that Professor Everett handles all the old time issues of intuitionism and empiricism, indeterminism and determinism, dualism, pluralism and monism, very much as he has handled that of hedonism and perfectionism. All of these, representing so many abstractions from experience and having each one some justification, but being in no instance exhaustive, are indications, in the form of isms, of conditions which always have to be reckoned with, but any one of them taken abstractly and given finality, is taken too seriously. Everett, then, does reckon with them; but does not take them too seriously. Notably, to give an example, he reckons with monism, but in discussing the problem of evil and the worth of human ideals he does not take monism too seriously and so, while giving value to its super-humanism (p. 419), is nevertheless quite able to say (p. 419), what very well marks the spirit and character throughout his book, that there is "sufficient justification" of human values and ideals "in it," again (p. 420) "is established in and through our experience." the fact that they do enrich and ennoble man's life." "Their valid-

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Economic Problems of Peace after War. (Second Series.) W. R. SCOTT. Cambridge University Press. 1918. Pp. xii + 139.

This publication is based on the second course of the H. Stanley Jevons Lectures at University College, London, delivered in 1918 by the Adam Smith Professor of Political Economy in the University of Glasgow. With a foresight that was almost as characteristic as it was commendable, British statesmen and students of public affairs long before peace was definitely in sight, gave attention to the serious problems of economic adjustment after the war, just as in the midst of hostilities they were bending every effort to enlist all available economic forces for the country's service in warfare.

Economic problems following a great modern war are of two kinds. One kind relates to the readjustment necessary to divert production from a war to a peace basis. These problems, while of press-

ing importance, are necessarily acute only during the period of transition from war to a full peace organization. The other kind are the deeper and farther-reaching economic problems which, while not necessarily new in all their elements, take on, because of the very fact of war and of its consequences in the various phases of social life, new aspects, and, perhaps, an entirely new character, which makes it necessary to recast old conclusions and to devise new remedies.

Professor Scott dealt in his lectures with these more permanent and more broadly significant economic problems. A catalogue of their titles will suffice to disclose the scope of his studies: *Mare Liberum*; *Aer Clausus*? A League of Nations and Commercial Policy, The Financial Burden of To-day and To-morrow, Conscription or Proscription of Capital, The Period of Financial Transition, Ten Years Later. In discussing these broad topics, Professor Scott put emphasis on what were, to him, the durable underlying principles. Consequently it would avail little to try to summarize briefly his viewpoint and his conclusions. It will be enough to say that his outlook is that of an intelligent, able, forward-looking liberal. He delivered his lectures, however, before Bolshevism threatened a complete overthrow of the existing social order, and so great are bound to be the results of Bolshevism and of other types of revolutionary economic readjustment, that, read from the present-day point of view, Professor Scott's lectures seem strangely concerned with a social order already passed away. Nevertheless, all who may be interested in reflecting upon the economic problems of the future will find that notwithstanding an inevitable British viewpoint, Professor Scott's finished and well balanced lectures supply many helpful and stimulating suggestions.

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL BULLETIN. August, 1918. PHYSIOLOGICAL AND COMPARATIVE PSYCHOLOGY NUMBER. *The Neurone* (pp. 257-263): H. B. FERRIS.—Seventeen researches reviewed. *Reflex Mechanisms and the Physiology of Nerve and Muscle* (pp. 263-272): E. B. HOLT.—Seventeen references reviewed. *Tropism and Instinctive Activities* (pp. 273-280): M. F. WASHBURN.—Forty-five researches reviewed. *Sensory Physiology of Animals* (pp. 280-287): K. S. LASHLEY.—Forty-one references reviewed. Special review. M. F. Washburn, *The Animal Mind*, second edition: HARVEY CARR. *Books Received*.

- Babbitt, Irving. *Rousseau and Romanticism*. Boston and New York: Houghton Mifflin Co. 1919. Pp. xxiii + 426. \$3.50.
- Carroll, Robert S. *The Soul in Suffering: A practical application of spiritual truths*. New York: The Macmillan Co. 1919. Pp. 241. \$2.00.
- Ladd, George Trumbell. *Knowledge, Life and Reality: an Essay in Systematic Philosophy*. New Haven: Yale University Press. 1918. Pp. 549.
- von Hug-Hellmuth, H. *A Study of the Mental Life of the Child*. Translated by James J. Putnam and Mabel Stevens. *Nervous and Mental Disease Monograph Series No. 29*. Washington: Nervous and Mental Disease Publishing Co. 1919. Pp. xiii + 154. \$2.00.

NOTES AND NEWS

THE following note supplements the information contained in the printed announcement of the Boston Trade Union College:

During the spring of 1919 the Trade Union College, under the auspices of the Boston Central Labor Union, was organized and its first courses of instruction opened on April 7th.

The committee in charge was made up of eleven representatives from the Boston Central Labor Union and five representatives of the instructors giving courses in the college.

The courses were open to all trade unionists of the American Federation of Labor and to members of their immediate families and it is possible that the admission may, in the future, be extended to include non-union workers as well.

The lectures are given in the rooms of the High School of Practical Arts in Roxbury—a region which is rapidly becoming the geographical center of Greater Boston. The courses during the Spring term have been of ten lectures each, meeting once a week from 8 to 10 P.M., the first hour usually being devoted to the lecture and the second hour to a general discussion. The fee charged for the course of ten lectures has been \$2.50.

The opening term has begun very modestly with only 160 or so students enrolled, but it is hoped that in the autumn the scope of the work and the number of students enrolled may be largely increased.

The courses which have been given this spring are the following:

- How to Write English. Carleton Noyes and Maurice J. Lacey.
 Practise in Discussion. Alfred D. Sheffield.
 Masterpieces of Literature. H. W. L. Dana.

Shop Committees and Collective Bargaining. W. L. Stoddard.

Introduction to American Law. Roscoe Pound.

Representative Government. Harold J. Laski.

Economics. George Nasmyth and Irving Fisher.

Physics. Horace Taylor.

Psychology and Logic. Charles C. Ramsay.

Among the other instructors who may give additional courses in the autumn are the following: Professor William Z. Ripley, Professor Felix Frankfurter, Professor R. F. Hoernle, Professor Zachariah Chafe, and Professor Francis Bowes Sayre.

The experiment is an interesting one in the history of education because it is perhaps the first time that a college has been started in which the administration lies in the hands of organized labor. There are institutions for higher education in certain radical labor groups and there are, of course, colleges aplenty for the conservative middle class, but the great masses of labor who are not radical have for the most part had little or no opportunity for advanced instruction. It is those groups, perhaps the most numerous and the most important of all to reach, that have hitherto been neglected. It is possible, therefore, that this experiment in Boston, humble as it now is, may spread to carry on a very important educational work among the rank and file of labor in Greater Boston and by means of extension courses, throughout New England.

It is hoped that similar experiments may be tried in other centers of the labor population until America has built up a movement to correspond with the great work done by the Workers Educational Association in England.

Major C. S. Yoakum, Ph.D. (Chicago), formerly director of the psychological laboratory at the University of Texas, has left the psychological section of the Surgeon-General's Department to become associate professor of applied psychology at the Carnegie Institute of Technology.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

A DEFECT IN THE ARGUMENT FOR REALISM

“**T**HINGS as they really are, unmodified and unconstituted by the act of knowing.” “It is denied that knowing makes a difference to the object known.” These two sentences, taken in substance from E. G. Spaulding’s book on *The New Rationalism* (see page 219), represent the usual and typical basis of the argument of the realists against idealism. It is evident that the definition of reality or of relation to reality is made with this polemic in mind. In each of the sentences above the negative is the important part.

In itself this emphasis on negation might not be indefensible, if the rest of the idealistic definition were accepted, only amended in this one particular. The danger, however, is that the amendment may be taken for the whole original definition. This seems usually to have been the case. Reality is defined as not affected by knowledge, but what does constitute reality is nowhere that I can find answered. If the realist makes his case good, he simply throws us back again to a renewed study of reality. Instead of having discovered a basis for a new metaphysics or cosmology, he and we with him must start anew from the bottom of the hill.

That the definition is essentially polemic is seen from the mention of knowledge. The naïve and primitive point of view does not raise this question. The thing known is there, that is all. When reflection comes in, and the child or savage asks where the thing is when not seen or felt by him, we get the beginning of philosophy. To the idealist’s answer to this question the realist objects. I can not see that he makes any answer of his own. To lay a sure foundation he should go further back, and ask what is the reason for the dualism of thing and relation. Perhaps the idealist is wrong in his fundamental analysis. The definition that would correct this must rest on a lower plane in the construction than the level of the idealistic upper works. In the theory of the externality of relations we have not a thoroughgoing revision of the idealistic analysis.

One explanation of the dependence of the realist’s definition on polemic is due to the fact that very frequently, perhaps usually, he

has arrived at his conclusions on account of the unsatisfactory nature of the idealistic construction. Following out idealism to its logical conclusion he has found, as he thinks, a *reductio ad absurdum* of at least some part of the premises. In the usual method of scientific construction of a theory he has sought to make such changes as are necessary in order to make the theory with which he started—idealism—conform to the facts. As the chemist of to-day still makes use of a modified atomic theory in spite of the overthrow of that theory as an explanation of matter and substance, so the realist still makes use of a modified idealism. Professor Spaulding is particularly given to this argument by attack. Only upon the partial ruins of all opposing systems does he erect his new rationalism. As a method of criticism, and of necessary destruction, such polemic is justified, but fundamental definitions can not be built on piles of unsorted and scattered rubbish. If idealism fails to explain the facts of life, if we can not resolve everything into mental phenomena or will, then it is not sufficient to simply deny that all relations are constructive of reality. Such denial erects no building upon the ruins. The realist's understanding of the defect in pragmatism, that a working hypothesis can only be a temporary expedient, must be applied to realism itself. It is not denied that we find ourselves in relation to what we call the real world. As a preliminary hypothesis it is justifiable to maintain that that real world is not as a whole dependent on our relation to it. Unless we are to give up as unsolvable the primitive question as to what is the nature of reality, we can not stop here. If we must yield and be content with negation, then pragmatism would seem to be preferable, with its acknowledgment of its limitations. If realism is to be more than negation, it must make an independent analysis of reality.

A further proof and result of the dependence of realism on polemic is that its definition of reality involves in that definition a relation. The consequences of this are fatal to the present lines of argument of realists like Spaulding. It therefore needs attention. To involve relation in the basic definition of reality is to assume that relations are basic and inescapable parts of reality. Once we have assumed this, we open the field for the idealistic construction, for we are certainly parts of the real world, and the relations which bind us fast in it will therefore also be essential parts of reality. Without such relations the world we inhabit would not exist as it does. We do not need to continue this line of argument to see that we have already moved far from the realistic position that relations are not constitutive and make no modification of reality. To stop such a development of the argument we must take care that the basic definition of reality does not involve relation. I do not mean, of course,

that the relation of defining or thinking concepts must be absent, but that the things defined must not include relations.

The definition in any form in which I have seen it does include a relation, the relation of change. If we may paraphrase, and remove as far as possible the negative, we may say that the realist defines reality as that which is in certain ways constant through change. The particular change stressed is the coming of a knower into relation to the real existence. Spaulding's definition of parallelism shows this clearly. Again paraphrasing, parallel tracks are those which whenever we come upon them are the same distance apart. To a man who never moved from the railroad station, the real, the unchanging thing, would be the fact that the tracks, to him, did meet. It is only the man who changes his position who can verify the truth that they do not meet. To answer the naïve question, where is the track when no one sees it, realism answers that when any one does see it, it will be the same as when last seen. When seen it has not changed from the moment before. It is the fact of this persistence through change, of being the same essentially in varying relations, that for the realist constitutes reality. What does change is, in so far, not real. The track I may imagine as taking itself up and walking off is not real because the real tracks never do this. The definition does therefore involve a relation as essential—the relation of change. So far as this definition goes, were there no change there would be no criterion of reality. In a static world dreams and stones would be equally stubborn unchanging facts. I am not attacking the realist's definition, but only pointing out that it involves necessarily the relation which we call change.

Besides involving the complicated relation of change in its definition of reality, realism assumes the universality of change. By putting forward the doctrine of the externality of relations as a contribution to our understanding of reality, realism assumes that change is so fundamental in reality that the statement that, though so prevalent, it does not change reality, is important. Once again, we are not attacking this statement, but only pointing out its consequences. Were change only present in some small part of real existence, or performed only a very small function, such a statement would tell us very little about reality in its larger aspects. Nor can we let the realist rest in the statement that change, though important and prevalent, is not universal. Once again, if change is not present in some particular part of reality, then at that point there exists no criterion between reality and non-reality. This assumes that the realist offers no test of reality except this doctrine of the externality of relations. If he does offer something in addition, then he must be judged by that, but that additional something will be of

the nature of either materialism or idealism or a mixture of both. If monistic it may be either; if dualistic or pluralistic it may be mixed of both. Such a construction will then be judged on its merits, and lie open to all the arguments against idealism, materialism, dualism, pluralism or monism. This is not the contention of the modern and recent realist. They assert that theirs is a new construction. Their new theory, then, with the other theories necessarily involved in it, is the sole necessary criterion of reality. That is to say that change is universal, and is sufficient to divide real from unreal.

Change is a complicated relation involving as its fundamental element the flow of time. If change is universal, then time is universal. The consequences of this seem to have escaped most recent realists as well as pragmatists. Bergson is a noted example of one who sees clearly the dangers and fallacies of a too great extension of spatial relations, but puts up almost no guard against exactly the same dangers from the undue extension of temporal relations. There can be no change without the passage of time. If change, therefore, ineffective change, is the great criterion of reality, then time must affect every particle of reality, and be a very important factor. It is time that destroys the unreal. What may for the moment have some sort of being, but not real existence, the next instant destroys, and the real thing stands forth uncluttered by the passing and temporary unreality. Without the coming of that next instant, real and unreal would alike be a part of life, and nothing exist, no difference, that could part them. Hence the realist must emphasize the necessity of time as a revealer of truth. Moreover, as change is an integral part of his definition, so time is necessarily involved. Reality, to paraphrase, is that which persists through time.

This definition, while it implies the universality of the time relation, at the same time minimizes it. Relations make no difference to the things related. This includes the relations of change and of time. That this offers no real or adequate explanation of what does affect and constitute real things, we do not here urge. It is sufficient to take realism at its word, and carry forward its doctrines to their conclusion. Realism offers a definition which assumes time as universal, and then minimizes it. This is in itself a sign of danger. What is a universal criterion of reality would seem by that very fact to be important. This is not a logical necessity, but it does require more attention than realists have given to it. Due probably to the forging of their weapons under fire, as a defense against opposing errors, they have not seen just where their shots are due to land. We can not rest content with this uncertainty. Such an all-prevailing relation as time must be studied further before it is relegated to the scrap heap.

It seems to have been assumed that "time" is a simple relation. To be next in space has been for long acknowledged as raising many problems. To be next in time, though for Kant similar difficulties arose as with space, has for his successors seemed a simple matter to be passed with little or no mention. Many of the spatial problems are really problems in time relation. This is especially true of the classic example of the flight of an arrow. With time so divided as to be in a one-to-one correspondence with each portion of space, there is no problem. However much of space remains to be covered, so much also of time has not elapsed. Infinite division, conceived of as it has been in this problem, is implied as continuing infinitely. If we define the infinitesimal as has been done, without reference to time, it presents no such problem. In space there is no apparent reason why we must go through each point before coming to the next. If there is no next, as the doctrine of the infinitesimal asserts, and we claim that we must pass from next to next, we have no insolvable problem. But in and by itself space makes no claim that we can only pass from next to next. The three points of a triangle taken as they are apart are perfectly definite, and we can pass from one to the other without touching anything in between. We can take all three together and ignore anything between. This is part of the "spread out" quality of space. It is not true of time. Time, as a one-dimensional relation relates its parts only by duration of one up to the other. They must be next, or they are not part of the same time. It is from time, therefore, that the problem of nextness and of change comes. Far from being a simple, easily understood relation, it is the time relation that is responsible for many of our most difficult problems. It seems strange that Bergson and others should take refuge in this relation to escape difficulties. Evidently time is a sweet charmer who hides the rocks of difficulty beyond.

There is one aspect of time emphasized by James which should have given modern philosophers pause. The specious present, or temporal present, has been carefully studied by psychologists but seems to have little interest for logicians and epistemologists. A duration which is both in active movement yet comprised in a single state of consciousness obviously offers the most natural approach for an analysis of the concept and of the relation of duration and of time.

The peculiarity of the specious present is that, appearing while focal in consciousness as a single whole, to any later conscious state it is seen not to be simple, but to have a beginning and an end, and to have a constant progression from the beginning to the end. Unless we had some such ability to hold duration and change within

one conscious state, we could not be conscious of the relation of change, certainly not of that of duration. It is from consciousness of this specious present that our concept and understanding of time comes. From the analysis of this specious present must come, therefore, our conception of time and the understanding of the temporal relation.

Our interest in such a relation and analysis of time is in regard to its effect on knowledge. If reality is that which persists through change and has duration in time, then the real is the permanent and unchanging in such a specious present. If this is correct we will find in the specious present a dualism of real and unreal. The very unchangeability will be the important and obvious element. The fact of change, or progression or duration, will for the benefit of the organism—for the better discovery of reality, of real dangers and real blessings—be minimized. That which is unchanging will be the real, the important. Just the opposite is true. A wild animal seeks safety in absolute immobility. For his pursuer motion is the important thing. As Bergson and many others have pointed out, it is change and progressive change that is significant. What for the realist must be regarded as in some measure at least unreal, what is modified by coming into our consciousness, this for the animal and for man is the important thing. Not what is unmodified by our knowledge, but what by our relation to it takes on special significance for us, this is important.

Value and reality may not be the same, the realist would say. In fact it is against just such arguments that his criticism is directed. His criticism of the pragmatist, and of the arguments for religion, also emphasizes his objection to any conclusion of value and truth. A good deal of the criticism of my own published arguments for the importance of the religious experience for theology have come from this same realism. It is not, however, to answer them that I call attention to this. Again our present interest is simply to draw out the realistic position to its logical conclusion and see what happens.

On one point the realist is consistent, more so than many of his critics. If the real is that which is unmodified by knowledge, then it will not be concerned with the one knowing it. It takes no special account of him, and it is therefore not surprising that it may not be of special importance to him. Putting aside the question whether this something of relative unimportance is what we mean by real, it is at least evident that the real as thus defined does not cover the whole of what is in consciousness. The relation between two men is certainly different when each knows that the other knows him. To be known, to be popular, is a goal many set them-

selves. The being known certainly in such cases does make a difference to the person seeking such notoriety. Again leaving to one side the question whether all such cases can rightfully be put in the class of the unreal, it is evident that the doctrine of the externality of relations does not apply to them. The relation of being known or of escaping being known is of the utmost importance to the hunted fox or bird. Such relations therefore fall outside the realist's definition of reality.

One of two things follows. The realistic definition may not be a complete criterion of reality. Some things may be real which are modifiable by being known. The realistic effort is then understood as an appeal for the possibility of external relations. The second possibility is that all social and conscious life is shut out of reality. There have been extremists who hold nearly this, but none, I think, in western lands. The western form of this second conclusion is to take refuge in dualism. Part of the contents of consciousness are modified in the act of becoming related. These are the mental and social facts. Then there are the real things, the unmodified and unchanging.

The first alternative, that the doctrine of the externality of relations does not apply to all reality, we do not need to examine long. If some real things are modified by being known, it then becomes a question of fact whether all are not so modified. The line between must be capable of demarkation. But a thing is only in consciousness as known. What it was before we can never tell. No way of parting the modified from the unmodified is open to us. All reality that we are conscious of is or may be modified. The mere possibility that it may not be, but can never be certified not to be, is certainly not worth fighting for, and is not sufficient to account for the vigor of the realistic effort. Such a lame conclusion puts no stronger barrier in front of the idealist.

It is the second alternative with which we are really concerned, that there is a duality in life, things and relations. The things are real, the relations are the changing and individual and social side of life. Our world is made by the existence of unchanging centers in the midst of changing relations. This does two things. It puts reality out of time, and puts relations in time. All relations then are temporal. Time becomes an essential part of relation, and has no effect whatever on reality. A gulf is fixed, into whose depths we must explore.

It is the existence of this gulf that should have given the realist pause. If relations are no part of reality, what are they? Does the real world produce existences which are not real? If it does not, if relations are real, then that which changes can not be ex-

cluded from reality? If relations are excluded from reality, where are they? It is admitted that we are discussing something which has some kind of existence. Relations in some sense "are," yet reality is defined by excluding relations. Relations have then some other kind of existence than do real things. They are put outdoors, but where is this outdoors? Also, exclusion is itself a relation. Two men with a door between them are related by that fact. To none of these questions has a satisfactory answer been given by the realists. Most of them seem not to have noticed the difficulty. To recent naturalism such reasoning is begging the question. Relations and things related are both real, therefore we need not concern ourselves with more fundamental questions. We need only to enquire into their connections with one another. But we can not allow the realist to rest in this naturalism. As a subordinate problem, the connection of relations to things related has a place. But first we must have some idea as to the general world in which both exist. What our idea of that world is must affect our theory of relations. We are therefore justified in pressing the question as to the meaning of the kind of existence to be ascribed to relations. Are they real as things are real? Are they unsubstantial imaginations or emanations? Are they reflections of something in reality? Or are they like the square root of a minus number, impossible existences? The realist must face these problems, which his definition raises.

There is another problem which this definition forces upon us. It is as old as the problem of the monads. If reality is what it is apart from relations, how is it cemented together? Again, this is not begging the question. That reality is cemented we agree, but unless realism can account for that cement as an integral part of the real world, we can not accept his theory. It is not possible to push this use of the word cement and say that relations just tie together what was before unrelated. Cement and mortar make possible a brick wall only because the bricks are so made that they will hold tight to the cement or mortar. Also, both cement and bricks are equally real in the same world. The cement is not really the relation at all, but only another thing to be related or rather already related by its nature and the nature of the bricks. So we must demand of the realist some conception of the interconnections of reality. He takes away relations as a modifying force, what does he put in their place? He can not be allowed to rest in the statement that relations do connect but do not modify. If they can connect without modifying, then that is because reality is so made. If they are necessary to reality, as this hypothesis requires, necessary in order to connect, and reality is so made that they can connect without changing it, then reality requires relations, and instead of being excluded

they are included in reality. This is exactly the opposite of the end the realist seeks. We are not to jump, however, to the conclusion that realism must therefore be rejected. We have been examining certain conclusions made necessary by his attempt to define reality. It may be possible that if we retrace our steps we will find a way around this deep gulf fixed between reality and relations.

From the beginning, we have based our deductions on the statement that things as they really are are unmodified and unconstituted by the act of knowing. If we are to find a solution it will be by retracing our steps to this point. This statement, as we have seen, includes in its definition the conception of time. The alternative to this is to so phrase our definition of reality that time is not implied. If we do not implicate time in our definition we do not include the necessity of change. This of course brings against us the Bergsonians with their charge of the evil of a static world. A static world is a world without change. Avoiding the use of the concept "change" implies neither its presence nor its absence. The world we seek to define is neither wholly static nor wholly in flux. Both notions have place in reality and neither should be excluded. But neither should be made fundamental. So long as we do not use reasoning which is applicable only to a static world we can rightfully ignore the time element. What we seek is a definition that will not require change in order to give it meaning. The bricks are what they are whether or not they are ever built into a wall. They have the characters that make that wall building possible, and we do not need to define them in terms of a future. The present intention is real enough to explain. It is not static, for it looks forward, but neither is that future required to be or to come into existence. There is a third possibility between a static world and a world in complex flux. The realist is correct in saying that my knowing the bricks does not create them nor change them. When time relates the bricks to the wall they fit into the wall without change. They do this, however, because they are so made. Already they are related to that wall by the intention of the brick-maker. It is that intention, and not the fact of my seeing them built into the wall, that is the primary factor. Thus the elimination of time from the definition of the real brick does not mean the ignoring of time. Time itself comes in as one of the already existing relations.

It is not my purpose here to give a new definition of reality. Much that the realist says in criticism of past and current idealism is true, and we can not simply go back to the old idealism. Instead, the realist needs to make that criticism thoroughgoing. He must bring relations themselves into the real world. He has been too intent on the thing known, as the idealist has been too intent on the

knower. Both points of view are needed. It will be well, however, even though we do not reach a new definition, to indicate the direction in which we should go. What we find in life is a whole world. Whether monistic or pluralist, whether coming into being at some one moment of past time, or infinite in time, or continually receiving accretions, this world which we know—the world we seek to define and account for—is a connected world. It is these connections with ourselves which primarily interest us. If we only find, but do not modify, then the interest grows. The new thing did not come forth from us; we must go out and investigate it. Our interest being primarily on the relations to us, and those relations certainly part of the world we exist in, they must be included in our definition of reality. There is then no gulf between things and relations. As we find them both together, we must leave them together. If we do not assume time as fundamental we shall not expect that these relations will modify our world. Neither can we conclude that things force relations. Yet we can not sunder the two. It is not a state of independence that we are studying, but of mutual dependence.

If we put relations first in importance, we will solve some of our problems. A dream is not as real as our perceptions of our waking moments; it has not as close connection with our actions and with the content of those waking moments. A falsehood does not tell of reality because it does not connect with what we find to be true. An imaginary quantity in mathematics is not as real as the "real" numbers, because it can not be connected as closely or as widely with the rest of our world. Here we have consciously been using the idea of time, for we have been speaking of verification, which is a temporal concept. We have not, and shall not here attempt to define reality, yet we see a way opening out. First of all we see that there may be no fixed status of real and unreal. The character of reality may be possessed in greater or less measure. It depends on the character of its relations. The more those relations affect us, the more completely we have to take account of them, the more real we find this thing to be. Thus we find reality to be something which is primarily related. If that were not of its nature, it would not concern us.

Realism has a large part to play in its critical analysis. If it will loose itself from its bondage to pragmatism, completely distinguish between verification and definition, it can be of much help toward a new definition of reality. But toward that new definition others have also a part to play. The idealist, as well as men like Royce, have worked toward this new light. If realism will lay aside its

polemic character, and base its construction on a non-polemic analysis, it can correct defects and join in this new construction.

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THE CRITICAL PHILOSOPHY AND THE THEORY OF TYPES

RECENT developments in mathematical logic have brought to light a number of weaknesses in the views traditionally maintained by the Critical Philosophy. This is most notably true of Kant's somewhat inconsistent theories of space and time, and his notions with regard to infinity. It is safe to say that in these realms the contentions of the *Critique of Pure Reason* have been disposed of with what at least approaches finality. But important as such criticisms may be, it is clear that there is no need to regard them as more than matters of detail. The Critical Philosophy might well submit to revision in these as in other particulars, and yet refuse to admit that its essential position had been invalidated. It is certainly true that the modern theory of the continuum, although it may lead us to abandon the doctrines of the Transcendental Esthetic, and of the Antinomy of Pure Reason, does not in any very obvious or immediate way upset the thesis that the understanding makes nature. But formal logic embodies an instrument whose scope goes far beyond any mere rectification in detail of the outlines of the Kantian Philosophy, and which casts the most serious doubt upon the central contention of the critical method. This instrument is the Theory of Types.

The Theory of Types was devised by Russell and Whitehead as a basis for mathematical logic, in order to avoid the contradictions which are encountered in elaborating the theory of assemblages, and which seem to stand in the way of any rigorous exposition of the principles of mathematics. The theory is approached by the discussion of a number of so-called "reflexive fallacies," such as that of Burali Forti. Stated in negative terms, the principle by which it is proposed to avoid these fallacies is that whatever involves all of a collection must never be a member of that collection. For the purpose of the present discussion there is no need to take up the technical development of the theory. Our interest is rather to point out its general relation to Epistemology. And of the cases cited by Russell, that which most immediately suggests epistemological considerations is naturally the paradox of Epimenides, where we have immediately a proposition about propositions. According to our negative principle the assertion that all Cretans are liars, if it is to be significant, can not be a member of the collection of assertions which are characterized by it. This condition is fulfilled by

importing the notion of the hierarchy of types, when it is pointed out that the significant assertion that all assertions made by Cretans are false must be of a higher type or order than the assertions which are thus described. That is to say, we impose a certain limitation upon the meaning of the word "all" as it is used in the assertion that all assertions made by Cretans are false by making it apply only to a certain determinate type of propositions, and not to all propositions without any restriction whatever. So in general we see that, as Russell says, "whatever we suppose to be the totality of propositions, statements about this totality generate new propositions, which on pain of contradiction must lie outside the totality."¹

Now it would seem that the Kantian Philosophy is necessarily concerned with assertions about the totality of propositions. Kant defines the task of the Critique of Pure Reason as being to determine and define the realm of possible experience. And the realm of possible experience can be nothing but the realm of all experience. So it appears that we are here dealing with a totality. Further this is a totality of propositions. We find that for Kant experience always comes to us in the form of judgment. Judgment he defines as the faculty of subsumption under rules. And this definition would seem to amount to making judgment roughly equivalent to what Russell calls assertion. The equivalence is only rough, because Kant's definition of judgment carried with it a special reference to the Aristotelian logic which is absent from the notion of assertion. With this difference, which from our point of view is not essential, we may say that the Kantian individual judgment as distinguished from the general faculty of judgment, will coincide with the proposition as understood by Russell. It will be the unit of assertion and of experience. Thus it would appear that we may interpret the contention of the Analytic of Judgment as being that all propositions have the properties $a b c \dots$. And the question at once arises as to whether we have here an illegitimate totality.

It is clear that if we accept this formulation of the import of the Analytic of Judgment as it stands, we find ourselves directly confronted with a reflexive fallacy. But many statements whose original form brings them into conflict with the principle of the Theory of Types may be amended in such a way that they cease to be objectionable. We have seen that this is brought about by limiting the application of our universal assertion to a determinate type of entities; and thus our question is whether it is possible to impose such a limitation upon Kant's assertion that all propositions have the properties $a b c \dots$. To arrive at a decision it will be

¹ *American Journal of Mathematics*: vol. 30, p. 224.

necessary to ask what is the general nature of the properties which Kant ascribes to all propositions.

We find that an enumeration of these properties is arrived at in the schematism of the categories, which itself is directly derived from the Analytic of Conceptions. The schemata purport to be the conditions under which the understanding can take up the perceptual manifold and form the synthetic judgments which are characteristic of all experience. The formulation of such rules is the peculiar task of what Kant calls the transcendental, as opposed to general or formal logic. We are told that general logic, even though it offers us a list of predicables, is unable of itself directly to give us rules for the operation of judgment, for the reason that it is formal in the sense of abstracting from all content of knowledge. General logic however is important as providing us with a guiding thread for the deduction of the categories, serving thus as a basis for transcendental logic. The distinctive features of this transcendental logic are a metaphysical deduction designed to show that the categories are *a priori* on the ground that they correspond to the general logical functions of thought as enumerated by formal logic, and also a transcendental deduction designed to show that they are conditions for the possibility of experience, which according to Kant must be at once *a priori* and *a posteriori*. Both these points are of great importance in making an estimate of the logical significance of this system of philosophy. For the moment we are concerned only with the transcendental deduction. This essentially consists in pointing out that the categories are the rules or conditions under which the original synthetic unity of apperception, the "I think" which must accompany all our ideas, can and must function in experience. In other words we have here a set of conditions for or expressions of what Bosanquet would call the standing affirmative judgment of the waking consciousness. Thus we see that the list of categories is for Kant an exhibition of the entire field of knowledge as such. Kant in effect asserts that knowledge, or as Bosanquet would prefer to say, consciousness, actually consists on its formal side as opposed to its material side, of a mechanism which is described in the doctrine of the categories.

This at once enables us to find the required interpretation of the assertion that all propositions have the properties *a b c . . .*. For these properties, which are exhibited in their final transformation and determination in the schematism, now appear as properties of knowledge in general. Thus when Kant in effect asserts that all propositions have the properties *a b c . . .* he is asserting that all propositions have the properties of knowledge as worked out in the Transcendental Deduction and the Schematization of the Categories.

Now it is clear that this makes it quite impossible to impose any such limitation upon the notion of all propositions as the Theory of Types would demand. We can not now interpret the assertion as being to the effect that all propositions of type n have the properties $a b c \dots$. For we are now dealing with knowledge in general or knowledge as such, that is with all propositions without any restriction. And so it would appear that the central theory of the Critique of Pure Reason is based upon a reflexive fallacy.

There are various objections to this criticism, which we may now consider. First it may be said that since the Theory of Types is nothing but a highly special logical expedient, it can not be the basis for a general objection to a position such as that of Kant. Second, and more generally, it may be said that since the Theory of Types is purely formal in character, it possesses at most only an indirect epistemological significance. This second objection will be examined (a) with special reference to Kant himself, (b) with reference to later Idealism.

With regard to the first point, it has already been seen that the Theory of Types was elaborated as a basis for mathematical logic in order to avoid certain breaches of the principle of contradiction which are exemplified in the vicious circle paradoxes. But this is very far from foreclosing the supposition that it might be possible to find various other expedients which would give us the same result. Whether these would be so convenient in practise, or so consonant with common sense, is a matter which is of no importance for the present discussion. The point is that the paradoxes could be resolved by methods other than that of the Theory of Types. Thus, for example, it might even be possible to deal with the problem by working with a set of postulates for logic which would involve a limitation or denial of the principle of contradiction, though this would be an extreme case. And it might be argued that if we admit that the Theory of Types is not a *sine qua non* for formal logic, we are not justified in criticizing the Kantian Philosophy on the ground that it offends against the fundamental principle of that theory. For it may be said that it is absurd to demand that a general system of philosophy shall stand or fall by its consonance with a theory which is not indispensable even in its own sphere. But the immediate reply is that even though we may substitute something else for the Theory of Types, this is very far from dissipating the problem which is presented by the vicious circle paradoxes. Naturally if we adopt some other basis for mathematical logic the solution of the paradoxes will undergo various appropriate transformations. But the problem which they exemplify will certainly not cease to exist, and will still have to be considered. And the logical difficulty

which the Theory of Types exhibits in the Kantian Philosophy, though it will be expressed in different terms, will nevertheless still remain.

We now come to our second point, for it may be said that in any case purely formal considerations, however important in their own sphere, can have no more than an indirect significance for the theory of knowledge, and that this constitutes a rebuttal of our criticism.

(a) With regard to Kant himself this is certainly not the case. It has already been remarked in effect that the Metaphysical Deduction is an essential moment in the Kantian Philosophy. Now the Metaphysical Deduction is an explicit postulation of the identity of the formal and the *a priori*. And the Transcendental Deduction takes the matter up at this point, and shows that the *a priori* is necessary for all experience. Experience for Kant is always a union of the *a priori* with the *a posteriori*, and is always exemplified in judgments which are at once analytic and synthetic. Thus the Kantian thesis amounts to the attribution of certain formal properties to all experience. Clearly this statement itself either possesses some formal character or it does not. If it does not, it is simply not a matter of possible experience in the Kantian sense. And this could only mean that it is a sort of direct mystical intuition, when it constitutes a direct and immediate contravention of Kant's own leading thesis. If it does possess a formal character, then it involves a formal reflexive fallacy. Thus it would seem that the only way of escaping from the admission that it comes within the scope of the Theory of Types as part of a formal science, to criticize such a position as that of Kant, is to say that Kant himself transgresses his own central principle in its very enunciation.

(b) With regard to modern Idealism, or more specifically, English Idealism, the case seems at first sight somewhat different. Here we find a strong reaction against the technical mechanism of Kant. And it must be admitted that by this means the school in question has been able to do away with a number of obvious difficulties which have been found in the *Critique of Pure Reason*. For instance, it is relieved of the impossible task of formulating an adequate list of predicables. And in general the whole system becomes much more elastic and manageable. But this is not enough to save it from the reproach of moving in a vicious circle. While a logical theory such as that of Bosanquet or Bradley largely amounts on the negative side to a protest against pure formal logic, it by no means abandons all the formal side of experience. Indeed, it explicitly refuses to take refuge in intuitionism. Instead of giving up the concepts of formal logic, it retains and seeks to interpret them. Thus it would seem to be open to the same objections as were urged against Kant.

For here too we find the same type of universal assertion to which exception is taken. When we find Bosanquet agreeing with Schopenhauer that "the world is my idea," defining judgment as the attribution of a content to reality, regarded as an intellectual construct, or saying that the world is in the mind rather than the mind in the world, we are in the presence of philosophy which distinctly involves assertions about all knowledge or all propositions. We see the same thing in the hysteron proteron argument with which T. H. Green opens the *Prolegomena to Ethics*, which is highly characteristic of this school, and which once more commits philosophy to assertions about the whole of knowledge. And since this philosophy at the same time insists upon the formal, or better the discursive character of all experience, we have vicious circle fallacies appearing at the very center of the system, which in spite of their formal character can not be ignored, because the system itself necessarily has its formal aspect.

In summing up, it is clear that this criticism has more than a merely historical interest. Many elements in the Kantian discussions have passed into the common stock of philosophical ideas, and the influence of the Critical Philosophy, whether direct or indirect, is apparent in almost all later speculation. Thus any far-reaching criticism of Kant is of high systematic interest, and without taking the matter up in detail it may be noted that three important points arise immediately from what has been said. First the Critical Philosophy, with its notion of a whole of analytic-synthetic experience, is based upon a reflexive fallacy from which there is no escape. Second, the only philosophy which can speak of the whole of experience without such a contradiction being created is that philosophy which abandons the entire notion of a logical element in all valid knowledge, that is to say, pure Intuitionism. And third, this logical difficulty is not encountered by Phenomenology, which can and presumably must limit itself to the inspection of various types or species of experience in detail. What the issue of this last adventure will be, only the event can decide.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Present Conflict of Ideals: A Study of the Philosophical Background of the War. RALPH BARTON PERRY. New York: Longmans, Green and Company. 1918. Pp. xiii + 549.

The obvious thing to say about Perry's volume is that it is made up of two books. Chapters I.-XXV. (380 pp.) constitute a perspective of ante-bellum philosophies and philosophical tendencies

which is affected by the fact of the war in only a faintly incidental fashion. Chapters XXVI.-XXXV., beginning with "The Philosophy of Nationality" and following with discussions of German, French, English and American philosophical expressions, are war-inspired and form a consistent and unified treatise. From Perry's introduction I assume that this broken-backed effect is not due to intention. There he says—and the saying is a wise one—that "the age after the war will be a new age; not so much because the map of Europe will be changed, but rather because the map of the human mind will be changed;" and he goes on to outline his purpose: "I should like to be able to construct a world-map of convictions, creeds, ideas, like the maps which the ethnologists make showing the distribution of racial types in Europe; or like the maps economists make to show the distribution of the corn-crop. I should like to make a map with intellectual and moral meridians, with degrees of latitude, trade-routes of thought, and great capitals of faith." This reads well, and one regrets that the author did not keep such a project clear in the eye in planning his book—which certainly most fumblingly answers such intention. The cause of the fumbling is revealed in the preface where we are told that the order of the first part of the book follows that of *Present Philosophical Tendencies* so that "the two books may be used together." This is rather dismal: a man may surely be allowed to forget his folio'd past, however discreet, and be thankful to the reader who, in such an hour as ours, will pay attention to the book in hand.

But, reviewer's privilege though it be, it is ungracious to find fault with the manner in which a service is performed if the service be a real one; and a real service, it is a pleasure to say, Professor Perry has rendered. For in whatever projection it be drawn, a map of contemporary speculation is bound to be full of suggested excursions and tarryings, tours among books and adventures with ideas, provided the map-maker be, as is Perry, gifted with an entire curiosity and provided with voluminous information. Indeed, it will be an inattentive reader who will not margin the pages of *The Present Conflict* with notes and point them with interrogations—and this, surely, in philosophy means a successful book.

In what I must inescapably call Part I. of the book (though it has no such typographical demarcation) the projection employed is, quite pardonably, the neo-realist. Materialism, socialism, evolutionism, panpsychism, optimism, absolutism, pluralism, pragmatism, vitalism, and a score of other contagions of the mind (why weren't they all called *-itis*, I wonder?) are passed in more or less hapless review before at last there rolls into sight the triumphal car of the New Realism, moving forward with a snap and a click and the

glitter of finality. The key-idea (something between a principle and a crotchet) which gives a really fine consistency to this part of the book is the author's notion of a warfare between faith and science. Thus: "Science is no respecter of persons. Its task is to reveal the common clay, the identical mechanism, the general forces, which underlie the superficial pageantry of life" (p. 103); "Although in some cases science has seemed to reinstate and confirm the traditional moral code it has invariably [so 'tis writ! *'invariably'!*] discredited the metaphysical and religious foundations on which that code is ordinarily supposed to rest" (p. 173); "It is possible to use pragmatism simply for the purpose of getting rid of the menace of science, and then to restore to the old authorities the claims which they enjoyed before the modern scientific movement discredited them" (p. 298); "Bergsonism, like idealism in the last century, has gained miscellaneous adherents who have been driven into its camp by the common fear of materialism. There is always an army of such refugees ready to accept the leadership of any champion who at the time promises to save them from this formidable menace" (p. 348). And finally: "The realist assumes that philosophy is a kind of knowledge, and neither a song nor a prayer nor a dream" (p. 368). Yes, the theme moves forward with the sweep of a crescendo, and terminates, as I have suggested, with a fine eclat. And yet—

Why will these beastly qualifications everlastingly intrude to stem the tide of our admirations! It is nothing to me that in punishing his opponents Perry takes every advantage that the bias of epithet can give (though I do own some curiosity as to just how that particular bias is to be eventually logicastered); epithet is good *ad hominem*: "let the galled jade wince!" Nor am I disturbed by the fact that his openness of mind and the fullness of the display of his properties seem to have something of the same candor that marks the prestidigitateur opening his performance with an appeal to public inspection; for, after all, this is rather flattering to the reader, and it has the further advantage of relieving one from the assumption of an impossible naïveté on the part of an author who can first reproach Bergson with "the discipleship of every man with an intuition," and then go gravely on to expound Bergsonism *quâ* system. These are mere incidents of the descent into controversial style, which no author need disclaim and no reader need resent. But there is an aspect of the matter, and not wholly remote from these just mentioned, which gives me pause.

No one can mistake the entire sincerity with which Professor Perry expresses his adherence to democratic principles, of which he shows in his final chapters in particular a most admirable under-

standing; nor can one doubt the sincerity of his belief that the New Realism sustains democracy. And yet—the qualification recurs—his whole point of view is obviously that of an intellectual aristocrat, whose aristocracy, moreover, is no accidental attribute of his intellectualism. I do not think that I mistake in putting the author in the ranks of those who “incline to accept a double religion: for the enlightened the disillusioned exercise of reason and imagination; for the vulgar such wholesome illusions as the enlightened shall select for them” (p. 44); and no one can miss the aristocratic animus on pp. 294 f.: “The Intellect is regarded by many as unpleasantly exclusive and undemocratic. It refuses to let everybody in. Intellectualism reserves knowledge for specially qualified persons.” *Etc., etc.* The truth in this is not particularly damaging to democracy in philosophies which recognize other types of value than the intellectualistic; but for a philosophy which professes to be wholly rationalistic, it leads directly to that conceit of superiority in which no democracy can thrive: and it is no departure from caution to say that the most of Professor Perry’s discourse moves in an atmosphere of conscious class-superiority. Of course this is not a sin of morality; it is the perfectly legitimate consequence of an hypertrophied intellectualism; but when it is accompanied by a profession obviously sincere of a belief in democracy, and by an understanding obviously sound of what democracy stands for, then it becomes a sin of the intellect—or, at least, a psychological puzzle.

It is this last which I have accepted. After all, *Deo gratias!* philosophers are men; and utter consistency, making a machine of him, would spoil any man’s charm. Perry has far too much both of charm and sense to be less than human. Being human and right-mindedly American, he is a democrat, and he twists his intellectualism to the support of his ideals with as brave a will to believe as any disciple of James ought to have. Of course he is not conscious of this (quick though he is to see the twist of desire in others). Why? Who knows! In the brief editorial preface to the striking recent number of the *Revue de Métaphysique et de Morale*, commemorating the fourth centenary of the Reform, a keen Gallic apothegm caught my eye, “*Un philosophe, au fond de son coeur, reste toujours un peu théologien.*” Perhaps this is in part the explanation of Professor Perry’s psychology. For I suspect him of sternly Puritan and grimly Calvinistic ancestry, and the stock does not readily deteriorate.

By all the rules of letters my review is done, but I am tempted none the less to add a codicil to my judgment, touching the crux of Realistic philosophy (*Neo-brand*) and therefore the core of the

Realists' psychology. The crux (as they themselves express it) is the "externality of relations" theory. Now this theory is obviously true in so far as it amounts to the assertion that there are describable objects in the world—that A is A, a spade a spade, and euphemism the worst form of lying. As Aristotle remarks, if he is to reason at all a man must say something which is significant both to himself and another—a truth which Perry quite happily generalizes: "Human intercourse is based upon the fact that *normally* human professions can be taken at their face value" (p. 15). But the Realists do not stop here; they go on to talk about "independence" and "indifference," meaning, as I gather, that the cosmic politics and manners of *entia* (for 'tis to politics and manners that the terms apply) are marked by these traits; and they infer therefrom the itemization of knowledge ("knowing as we go," Perry puts it) and the compartmental seclusion of truths. It is perfectly evident that this notion goes by the board when the affairs of morals are the concern. Of independence, taken in its humane sense, Perry says (with entire justice): "The cause of liberty is saved neither by those who break it down nor by those who exalt it, but by those who limit its action and use it well" (p. 519); and again he justly says: "The surest guide of conduct is the happiness and well-being of sentient humanity" (p. 536). In other words, *law*, which expresses dependence, and *humanity*, conceived as a consensient collectivity, are the normal frames of moral reasoning. There is no possibility of "independence" or "indifference" or of "knowing as you go" here; the best you can do is to experiment with imperfection, and experiment socially, in collaboration. Perry remarks, *in re* Bergson (p. 348) that the morals of Bergson's philosophy are yet to write; the same is true of the New Realism: the moral code which the Realists profess belongs to the individuals—through Calvinist ancestry, or what not—rather than to any cogency of rational relationship. One feels, indeed, that Realism has "externalized" morals out of all relation to the intellect, as it knows the intellect—and that means that it misses being alive. It is, in fact, but a closet philosophy; it never looks nature full in the face, but, having had its origin in a concern about method, it can not get out into the reality it covets. Naturalism it never is and can not even define ("by naturalism I mean such philosophy as grows directly out of the methods or results of the physical sciences," says Perry [p. 7]); and it reasons smoothly only in the chiaroscuro of a half-closed apartment or of a sedate club corner—as if deprecating the light like Malebranche's Théodore: "But draw the curtains. The full light of day would incommode us, and give perhaps a too great brightness to certain objects. . . ."

JOURNALS AND NEW BOOKS

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. June, 1918.
Il Processo di Socrate (pp. 241-268): F. KIESOW. — The best account of Socrates's condemnation is given by Plato in his *Apology*. *L'ordine artistico* (pp. 269-285): M. DE WULF. — The pleasure caused by a work of art is due to the elements of unity and multiplicity harmoniously combined. *Mazzini filosofo* (pp. 286-294): FRANCESCO OLGIATI. — A study of the life and of the political ideals of Giuseppe Mazzini. *L'assolutezza delle massime morali* (pp. 295-307): U. A. PADOVANI. — Moral law is one and immutable in so far as God is concerned. For us, however, it varies according to times and circumstances. *Analise d'opere*. George A. Coe, *The Psychology of Religion*: A. GEMELLI. E. Peillaube, *L'introduction de la scolastique dans l'enseignement secondaire*: A. GEMELLI. Alessandro Levi, *Bibliografia filosofica italiana*: A. GEMELLI. Aristotele, *Politica*: LEONIDA BIANCHI. Luigi Perego, *I nuovi valori del diritto penale*. F. Kiesow, *Il daimonion di Socrate*: A. LEVI. *Notiziario*.

Parker, G. H. *The Elementary Nervous System*. Monographs on Experimental Biology. Philadelphia and London: J. B. Lippincott Co. 1919. Pp. 229. \$2.50.

Sorley, W. R. *Moral Values and the Idea of God*. Cambridge: The University Press. New York: G. P. Putnam's Sons. 1919. Pp. xix + 534. \$5.00.

NOTES AND NEWS

DEWEY'S LECTURES IN JAPAN

In the months of February and March Professor John Dewey delivered a course of eight lectures at the Imperial University at Tokyo on "Problems of Philosophic Reconstruction." The following is the syllabus prepared for the audience to which the lectures were addressed. We understand the lectures are to be printed in Japanese. It is to be hoped that Professor Dewey will publish them in English at his earliest convenience.

LECTURE I

CONFLICTING IDEAS AS TO THE MEANING OF PHILOSOPHY

I.

The Origins of Philosophy. 1. Since man is primarily a being of desire and imagination, his primary beliefs spring from his hopes and

fears, successes and failures, rather than from observation; they are poetic and religious, rather than scientific. 2. These ideas when fixed and organized under community tradition and authority became the material out of which philosophy developed.

II.

Positive or Matter-of-Fact Knowledge. 1. Information regarding nature, and the natural conditions and consequences of human acts, is necessary to life. This knowledge grows up around the practical arts which give to man the use of the natural environment. 2. After a time the incongruity between this knowledge and the body of emotional beliefs is so great, that some reconciliation is sought for. Then philosophy proper arises. This fact is illustrated in the development of both Greek, medieval, and modern German philosophies. Matter-of-fact knowledge is (i) specific, limited, hard and cold; (ii) accurate and quantitative, and useful; and (iii) consists of tested facts; while poetic and traditional beliefs are (i) universal and comprehensive; (ii) qualitative, vague, but socially fundamental; and (iii) concerned with meanings and values rather than with facts. Hence arise

III.

The Chief Traits of Classic Philosophy. It is (i) apologetic and "compensatory"; (ii) formal and rigorously systematic, or dialectical; (iii) concerned with the difference between absolute, universal Reality and Knowledge and that which is relative, partial and empirical.

IV.

The Newer Idea of Philosophy. This (i) recognizes the impossibility of reconciling the traditional beliefs with modern scientific developments, and (ii) recognizes the origin of philosophic questions and interests in social conflict and needs, and hence conceives of philosophy as an organ or instrument of social direction.

LECTURE II

KNOWLEDGE AS CONTEMPLATIVE AND ACTIVE

I.

Contemplative Philosophy. 1. Man forms pictures of an ideal world by conceiving a state of things in which only the satisfactory or complete exists. Reflection analyzes the features of such a world, and finds them to be permanence, unity and harmony, and thus creates a noumenal real-ideal realm of being.—Plato. 2. In contrast, the existent and evil empirical world is one of multiplicity, partiality

and change. The primary function of philosophy is to lead the mind from belief in this world to contemplation of the ideal-real world. This contemplation leaves the phenomenal world unchanged, but assimilates the mind to true Reality. Aristotle's theory of true knowledge and its influence.

II.

Active Philosophy. 1. Its "realistic" phase consists in willingness to study and to take into account existing facts, regarded as obstacles and means in achieving desired changes. They are not treated as things to be escaped from nor yet to be acquiesced in. Direction of change is the great problem. 2. Its "idealistic" phase consists in cultivating suggestions, ideas, or ideal possibilities and meanings as methods and plans for transforming and improving existing conditions. Forecast of a better future is the pragmatic substitute for the noumenal world in contemplative philosophy. Ideal meanings are thus not separate or ultimate, but are instrumental and need to be tested by consequences.

III.

The Special Function of Active Philosophy. While the function of all knowledge is to rectify troubles, that of the sciences is technical, while that of philosophy is social and human or moral. Why knowledge is objective, impersonal and universal. Philosophy is comprehensive and ultimate in the moral sense of going below prejudices, traditions and purposes which divide classes, races and peoples and trying to discover moral adjustments.

LECTURE III

SOCIAL CAUSES OF PHILOSOPHIC RECONSTRUCTION

The two previous lectures have dealt with the contrast of the classic and the modern conceptions of the nature and function of philosophy. The next two consider the reasons for the growth of the newer point of view, the present one dealing with the more general historical and social factors, the next with the more special scientific factors.

I.

The Philosophy of Francis Bacon. This may be taken as exemplifying the transition from the classic to the modern point of view. It had for its chief features the ideas that: 1. Knowledge is power, not contemplation. Yet this knowledge is obtained only by "obeying nature," not by "anticipating" her. 2. This knowledge can be

obtained only through cooperative and organized research, not by mere individual ability which results only in disputations or ornamental knowledge. 3. The end of knowledge is the relief and improvement of the human estate.

II.

Social Factors in This Point of View. 1. Industrial, matter-of-fact activity and invention had reached a point where the idea of constant and systematic progress through control of natural forces was possible. Travel, exploration, discovery of a new world. 2. The beginning of the break-down of feudal class divisions, and the rise of national states with a corresponding release of the individual from the bonds of custom. The contract theory of the origin of the state. 3. The beginnings of freedom of criticism and conscience in matters of religious belief and worship. Belief in the power of Reason and Thought was transferred from the conception of the formation of the Universe at large to concrete things and human institutions. Idealism ceased to be cosmic and objective and became in Bacon's successors individual and subjective.

LECTURE IV

MODERN SCIENCE AND PHILOSOPHIC RECONSTRUCTION

The growth of science since the seventeenth century has revolutionized our ideas of (I.) Nature and (II.) the Method of Knowing.

I.

The Contrast as to Nature. 1. The classic view, formulated by Aristotle and adopted by medieval thought, held (1) that nature is a closed whole, finite, and composed of parts qualitatively different, and arranged in a hierarchy of higher and lower; and (2) that there are a definite number of fixed classes or species, each having its own immutable form which controls its movements and growth, so that (3) individuals which change and perish are real only as members of fixed and universal classes. 2. The modern view asserts (1) the infinity, uniformity and homogeneity of Nature, thus substituting a democracy of elements for an aristocracy of classes, (2) that motion and change are more important than fixity and (3) the universal subordinate to individuals.

II.

The Contrast as to Method of Knowing. 1. Classic method emphasized the importance of definition, demonstration, and syllogistic reasoning—the inclusion of particulars within the conception of the class. Sense perception was knowledge of perishing particulars and

had to be subsumed under the rational knowledge of conceptions. 2. Modern science is interested in inquiry and discovery rather than proof, and hence insists upon experimental analysis of all sense observations, and the experimental verification of all general ideas which are regarded as only hypotheses till verified by experimental production of individuals. Control of change is both the object and the test of knowing. Pragmatically, infinity is equivalent to possibility of indefinite progress.

III.

Effect upon Philosophy. For a considerable period, the effect of the change was limited to physical matters and hence was technical and industrial rather than humane and moral; or, in the latter region, the influence was skeptical rather than constructive. Now the influence is extended to the moral and social.

LECTURE V

THE CHANGED CONCEPTION OF EXPERIENCE AND REASON

I.

Earlier History of the Notion of Experience. 1. To Plato and Aristotle, experience meant an accumulation and gradual organization of a multitude of particular acts and perceptions into a kind of practical insight and ability, like that of the builder or physician. The "empirical" versus the scientific. 2. The early modern, British, notion of experience was under the influence of sensational psychology, and eliminated all traits of organization save those supplied by casual association and blind habit. It was a powerful tool of skeptical criticism, but was impotent for construction.

II.

The Earlier History of the Notion of Reason. It was framed to meet the weaknesses in the current idea of experience. 1. To the Greek philosophers, Reason was the faculty of insight into the universal, the law, cause or principle, which was the only source of scientific explanation and demonstration and of sure direction of conduct. Historically, this "rationalism" became formal, the source of neglect of empirical observation, and the originator of a pseudo-science of simplification and abstraction: "rationalization" as explaining away and covering up. 2. Kant responded to the sensationalistic idea of experience with the theory that Reason is a faculty of organizing the chaotic details of experience through *a priori* fixed concepts as categories. Effects in developing absolutism of thought and action in Germany.

III.

Recent Ideas of Experience and Reason. 1. Modern psychology has destroyed the sensational notion by bringing out, under biological influence, the active and motor factors in experience. Experience is doing, trying, and sensations are clues to adjustive behavior which modifies the environment. Experimental method has destroyed ancient empiricism by emphasizing projection and invention instead of accumulations from the past. Reason thus becomes Intelligence—the power of using past experience to shape and transform future experience. It is constructive and creative.

LECTURE VI

THE RECONSTRUCTION AS AFFECTING LOGIC

The problem of logical theory is important because it involves the question of the possibility of *intelligent method* in determining man's attitude toward his environment, both natural and social. Logic has to be rescued from abstract formalism on one side and from sterile epistemology on the other. Reconstruction emphasizes:

I.

The Connection of Thinking with Behavior. 1. Thinking originates from problems and perplexities, and these arise in conflicts. The intellectual as distinct from the emotional solution of conflicts involves a technique of observation, hypothesis forming and testing, ratiocination, etc. 2. The function of thinking is to develop methods of dealing with specific situations; the "idea" is a hypothetical plan of action to be tested by consequences. 3. Science or disinterested inquiry is an indispensable form of practise; meaning of thinking for thinking's sake.

II.

Inductive and Deductive Aspects of Method. Their traditional separation resulted from the traditional separation of experience and reason; hence they are now to be treated as mutually complementary. 1. Induction comes at the beginning of a complete inquiry, for experimental observation is needed to analyze the conditions which constitute a problem, and also to test the theory or hypothesis. 2. Deduction is indispensable as the intermediate step of developing an intelligent method. Abstraction liberates; generalization extends and applies; system, classification, prepares an orderly set of instrumentalities, ready in advance for dealing with emergencies as they arise.

III.

The Conception of Truth. This is a consequence rather than a foundation of other logical features. From the instrumental character of reflection it follows that only theories, ideas, can be true or false, and can be true or false not in themselves but in their application or use. The mark of consistency has to do with the deductive development which works out an applicable conception; correspondence is practical, not epistemological.

LECTURE VII

THE RECONSTRUCTION AS AFFECTING ETHICS AND EDUCATION

I.

Goods and Ends are Specific and Active, not General and Static.

1. Each situation requiring action has its own good depending upon its peculiar needs and conditions. Comprehensive and general ends are of value as instruments of better insight into these specific situations; similarly, principles and standards are tools of analysis and understanding, rather than direct rules of conduct. The effect of the doctrine of the plurality of unique goods is to increase responsibility of intelligence; to decrease formalism, moral dogmatism and Phariseeism. 2. Ends and goods are *within* each situation, not external. An aim or purpose is a working hypothesis for directing the development of a situation, and is tested by consequences. Hence ends themselves are developing, not fixed. An ideal is a sense of the possibilities of a situation, and is of value only as inspiring action and directing for ameliorating its evils; meliorism as compared with optimism and pessimism. Happiness is found not in possession or fixed attainment, but in the active process of striving, overcoming and succeeding; failures are to be turned to account, and are not incompatible with moral happiness.

II.

Value and Defects of Utilitarianism. It has the merits and defects of a transition from one point of view to another. It made the end and good, natural and social, and subordinated law to ends. But in resolving happiness into a mass of pleasures it was made something fixed and uniform in quality, and something to be acquired and possessed. Thus utilitarianism emphasized security of acquisition and possession rather than power and security in creative achievement.

III.

Effect on Education. Education comes to be regarded, accordingly, as not only the method by which moral and social ends are realizable, but as identical with the end, namely, growth and devel-

opment. The purpose and test of social institutions is their educative effect, while education, in its narrower sense, becomes the primary method of social progress.

LECTURE VIII

RECONSTRUCTION AS AFFECTING SOCIAL PHILOSOPHY

From the conclusion that the moral test of institutions is their educative effect there follow other conclusions of importance for social philosophy.

I.

Relation of Individual and Social. The three historic theories of subordination of individual, subordination of social, and "organic" relationship suffer from the same error. They regard individual or social as fixed, given ready-made, instead of as developing and therefore as objects to be continuously worked out. When the individual self is treated as isolated and fixed, social arrangements can only be external means to its pleasures or possessions. But in fact institutions, legislation, administration, *etc.*, are necessary to the release and operation of the capacities that form the individual. Society also means not a fixed organization, but reciprocal and growing sharing or communication of experience. Organization is subordinate to association. The political state is only one of a number of forms of association, each having its distinctive value. The state is instrumental rather than final.

II.

Relation of Rights and Duties, or Freedom and Law. Neither is ultimate, because both are conditions of effective furtherance of a community of experiences, of common ends and values. Unless all the capacities of the individual are liberated and used, society is static and impoverished. Personality develops only through assuming of responsibility, and responsibility is limited except as persons have a share in deciding the matters that are of ultimate importance at the given time. Law is a statement of the order upon which fruitful association depends. British "Individualism" made liberty an end in itself, and German Political Philosophy made Law and the State absolute.

III.

Religious Aspect of Reconstruction. As the changes described take deeper hold on emotional disposition and imagination, they get a religious coloring; till this happens, the classic philosophy will seem to have the advantage in ideality. Religious value of personality and of the community; place of Nature.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE DEFECT OF CURRENT DEMOCRACY

DEMOCRACY, the notion most loved by the modern occidental, the faith to which we are without reservation committed—dare we suspect in it aught of imperfection?

Yet it must be remembered that when the emotions are deeply engaged, then more than ever is dispassionate reflection needed. And especially so here: for the term in question, like the ideals it reveres, is no static one. Its application is reaching far beyond its birthplace, politics; democracy, as to-day conceived, is an all-pervading spirit, a philosophy of life, to most of us indeed the synonym of the all-good. By its standards we adjudge merit in the most diverse fields; we praise a leader for his democratic manners, we brand as undemocratic an educational project, we reject the older conception of God as an autocrat, art and literature we insist must become democratic if they are to endure—and so on. And in all this how ambiguous is the word! The United States government, some of us believe, is the only true form of democracy; the Bolsheviks say the same of their own system; free competition in industry, and state ownership, alike claim the title. A recent writer declares that democracy is not representative government, nor government by majority, nor equal suffrage, saying "We have not even a conception of what democracy means; that conception is yet to be forged out of the crude ore of life" (M. P. Follett, *The New State*, p. 3). When a notion so profoundly influential is thus contradictorily interpreted, it appears to be high time to put it through a sifting process. The fact is that men take democracy as a cherished emblem; they set up what they believe to be the ethical and social good and call it by the sacred name. And it would almost seem as if these ideals had little in common save their opposition to aristocracy.

It is of course profitless to enter upon a verbal discussion; it does not matter which definition has the first right to the term. We wish to learn what is the ethical and social ideal that does justice to the needs of human nature, and whether or not current interpretations of democracy adequately provide for these needs. And in order to ascertain this we must bring to light those needs, those ideals, whose

satisfaction is essential to man's successful prosecution of his various activities. What ideals have governed men's procedure in science, in art, in religion, in morals, *etc*? And if our inquiry would be fundamental, reaching to the very roots of human nature, it must be a broad one, covering as many of these fields as possible; we shall however, for reasons of space, here restrict ourselves to the fields of science, religion, morals, and education. Probably these will afford a basis broad enough for safe generalization.

What ideals, so far as an outsider can judge, have the scientists followed in their work? The scientific attitude seems to be that of free inquiry or empiricism. Nothing is prejudged: a fair field and no favor, for all facts alike. In contrast with theology, which is interested inquiry, science is disinterested inquiry. Every fact is to be recorded, every hypothesis to be allowed a hearing, all to be tested equally. This is the spirit of induction of the "true Baconian principles" upon which Darwin declared that he had worked. Is this motive of equality then the essence of the scientific point of view? Clearly it is no more than half the story. Recording of all facts without discrimination of important from unimportant would be stupidity. Some are to be selected, others neglected. Scientific skill, it would appear, is conditioned by the knowledge how to distinguish. Nay more, it consists in forsaking at times the spirit of disinterested inquiry, and selecting such facts as will prove a certain hypothesis; in active looking for a certain type of fact more than for other types. Unless one becomes enamored of a theory he will hardly find all the evidence for it; unless he heartily dislikes another he will not easily discover all the evidence against that. Disinterested inquiry, so necessary in the inductive state, must later be replaced by interested, even prejudiced inquiry. Of course it is only at a certain stage that this is necessary. But note that it is at the interesting, the progressive stage, when explanations begin to dawn upon the inquirer, that this motive of preference is necessary.

In other ways too preference and selection are unavoidable. One must discard certain hypotheses out of hand, as not worth entertaining; and according to his degree of expertness, is one able to reject without trial more and more of the possible explanations that suggest themselves. Also, of those that would pass the tests, one chooses the most fertile. The principle of economy compels us to prefer the theory that will account for the greatest number of facts: whose deductive power is greatest. In the free competition of facts and theories which constitutes the growth of science, some facts and some theories are so superior that they will have their way, and progress in science lies in recognizing this difference. Besides the motive of equality, then, which controls the inductive side, we find that the

counter-motive of distinction, which controls the deductive aspect; and the latter, while by no means more necessary, is more fertile for advancement. For it is preeminently by the ability to distinguish relevant fact from irrelevant, fruitful theory from unfruitful, and by the fecundity of his imagination, that the discoverer in science is known. Creative genius emphasizes distinction.

Treating now of science as a body of doctrine, let us consider the relation between law and fact. Both of course are equally necessary. Yet every science, as it grows, becomes better organized: which means that it becomes more of a deductive system. It contains a hierarchy of laws, under which the facts are subsumed, and hereby the laws are placed above the facts as explaining them. From the logical point of view, this is a distinction of higher from lower. Or if one holds that law is only a shorthand and résumé of facts, then he will say that its superiority resides in its utility and economy rather than in its explanatory virtue. In mathematics, which expresses an ideal of all science, the whole body of doctrine is generated out of a few initial postulates; and these postulates are logically superior to their consequences.

We find then two motives in man's scientific activity, *viz.*, equality, and distinction or superiority. On the one hand, all facts are equally to be accepted, law and fact are equally requisite, and all hypotheses are entitled to fair consideration. On the other hand some facts show, as science grows, a superior distinction over others; laws are found to be more significant than facts, certain theories than certain others. Nor does the superiority establish itself as a necessary consequence of the equality. Facts, arrayed dispassionately by a recording intelligence, do not push out from among themselves those which are intrinsically pivotal; theories, competing before the mind of the thinker, do not of themselves resign and give place to the best. The thinker has to choose the more interesting and promising, and give it greater opportunity than the rest, developing its consequences to a greater extent, treating it as altogether a privileged thing. Equality is then a necessary, but not a sufficient condition of scientific inquiry: superiority, being added, alone suffices to make it go. Both motives are necessary, and in this respect neither has the advantage; but they are not equally valuable, since superiority is more in evidence at the productive stage.

We pass to the religious consciousness.

The Christian church is severed into two great halves, Catholic and Protestant; the former standing in the main for the principle of authority, the latter for the right of private judgment. On the Catholic view, some men know religious truth better than others; these men are inspired by divine grace. Such were the disciples of

Jesus, particularly Peter; and the inspiration was transmitted through Peter to his successors in the Papal chair. They are the religious experts to whom the believer trusts his soul's welfare, as he trusts his body's to the physician. It is open to any one to live the good life, but good works alone do not entitle one to become a religious expert. All men have equal opportunity to perform them, but God, or his representatives in the church, selects some above others to be the special channels of His inspiration. In this way Catholicism uses both the motive of equality and that of distinction. To every man it is open to become a believer and by good works a candidate for saintship, but Divine authority will choose for its own reasons only certain ones of those candidates. Protestant churches, on the other hand, while displaying a similar duality, lay more stress upon the motive of equality. Their respective creeds, to be sure, are determined already, by their founders, and the individual member can not alter them to-day—so far there is authority; but he is allowed a far greater liberty of interpretation than the Catholic. Indeed, with the Unitarian there is almost perfect liberty, the only authority lying, if anywhere, in the direct words of Jesus himself. Also, with perhaps the single exception of the Calvinist, he may be saved by individual good works or faith. Protestantism claims, I believe, no infallibility in any fixed body of men; and all men are to have equal opportunity for salvation or saintship. It is apparently true, moreover, that to-day the element of authority in Protestantism is fast diminishing, and an attitude like that of the Unitarian is becoming common, *viz.*, theology (authoritative doctrine) plays but a small part; one is to take the Bible as he understands it for his guide and his desert is to be adjudged by his conduct alone. Here the motive of equality of all men, signalized by the phrase "brotherhood of man," assumes the dominant rôle. It looks as if the last vestige of authority, even that ascribed to Jesus and God the Father, were about to vanish; for Jesus is practically treated as no more than the elder brother and God as no personal monarch, but a sort of immanent law of progress in human history.

Yet even here is found the principle of distinction, for if religion does not turn into morality, it worships *some* highest principle, be it only dubbed Humanity or a Power that works for progress; and reverence for such a principle makes distinction of high and low, with at least *superior* power ascribed to the principle. Perhaps the transition of religion to morality is marked by the view of James that God is no king, not even a gentleman, but a sort of superior people's helper, sharing many of our faults, growing stronger and better as we grow. But here we are passing the

bounds of Christianity. In that field, at any rate, we seem to find the two motives of equality and distinction; the Catholics laying more stress on the latter, the Protestants on the former. However, inasmuch as the difference of religion from morality is reverence for some one greatest principle, be it personal or impersonal, it seems that all religions are at bottom based upon distinction, *viz.*, in so far as they worship something. The degree of distinction between God and man, and the degree to which distinctions among men in their relation to God penetrate, differ in the several religions. So far as I know, all religions have had priests and seers. Yet it remains true that all men are declared, in one religion after another, to be of themselves and apart from God, equal before Him. If they are in this sense equal, however, it is because He created them all; the motive of distinction, being the ground of equality, is the more fundamental of the two. Jesus himself appears to have held this view: he commanded *first* the love of God and *second* the love of the neighbor as equal to one's self.

Morality, it would seem at first, is governed solely by the principle of equality; at any rate the modern morality of altruism and social service. The adherents of this school tell us that we should no longer content ourselves with the narrow, personal code of righteousness which our fathers respected. It is not enough to be temperate, or chaste, or frugal, or dutiful parents and children, faithful spouses, upright in business, *etc.*; we must reach out and lift the burden of woe from the poor and the oppressed. For all men are equal; at least equally deserving of respect and the right to live decently and usefully. To better the world is to equalize the members of the world; and first of all perhaps, to ensure enough wealth to every one to enable him to live decently and usefully, to contribute his meed to society.

Now by what means shall this be accomplished? Not merely, I presume, by a redistribution of wealth on fairer terms than now hold; not merely by preaching to the poor the necessity of thrift or of small families; not merely by urging the laborer to increase production—though perhaps by all of these together, or even by some other device added. There is, however, no way of making permanent any system of social benefit except by educating the recipient to a sense of responsibility. Until people of moderate incomes can learn to live within those incomes, to regulate the size of their families, in short, themselves to follow the older code of personal ethics, no lasting reforms are possible. Surely it is thus evident enough that individual morality has got to precede the social. The social problem, indeed, is but the problem of finding means to educate morally the individuals who make up society. Mass-reme-

dies may be necessary, but only individual moral conduct is a sufficient base for social progress.

Herein lies the potency of personality, of individual example, as a moral force. No moral principle was ever successfully taught to the many except as it was lived, first by the teacher himself, and then by one follower after another until it became a common phenomenon. It is from individual centers that reforms start; history records no instances to the contrary. The teacher may not deem himself better than others, because he sees in them the potentiality of greater achievements than his own; but he must actually *be* better, else he can not raise them to a higher level. This is, if I mistake not, the fundamental law of moral progress. The motive of equality is necessary, but without distinction of better and worse individuals there can be no advance.

Indeed the same is true in other realms than the moral. Progress emanates from unique individuals; they alone furnish its *ποῦ στῶ* while the mass of mankind, relatively equal and undistinguished, is the weight which their lever must lift. Of course the leader, moral or scientific, is not merely a leader. He needs cooperation; he learns from those he teaches. The primacy of the discoverer is not opposed to his interdependence with his fellows. Nor does it matter that most great discoveries were in part, perhaps in every part, suggested to their announcers by fellow-men. The discoverer was none the less able to discern what the suggesters could not see, and to put together into one fecund concept the scattered parts. Thus did Darwin use the ideas of Malthus, Newton the empirical laws of Kepler, Shakespeare the plots of older literature. But we do not account such use a detraction from their originality, their spontaneity and productiveness. It would be as reasonable to deny the superiority of intellect over sense on the ground that all the material of thought is drawn from sense-experience. No, we are not concerned to deny the interdependence of leader and led. But the issue before us is: which of the two deserves the greater consideration from the point of view of progress? While both are equally necessary, one may be of greater value and significance. And it remains true that no doctrine of science, no religious insight or moral maxim, was ever discovered by a body of men working together. On the contrary, the assembled multitude, small or large, is usually hostile to such discoveries—and the larger it is, the more hostile. The mass of humanity, in the degree in which they are influenced by one another—the extreme case being the crowd or mob—become stupid and open to irrational suggestion. Here is the everlasting contribution of Protestantism: the right of private judgment. It is the privacy of the judgment that makes it at once a right and a duty; each man,

though he may and must consider proposals made by others, must decide in his own mind upon the truth of them. Without such a decision, he is tossed about by every wind of doctrine that blows.

It is, to be sure, clear enough that social cooperation in the search for truth is not always a matter of mutual hypnosis. It ceases to be that in proportion as we ascend from the level of the majority. A gathering of specialists, as in a learned society, a board of directors, a committee, is far removed from a crowd; it is what we might call an aristocratic crowd, a selection from the crowd. Such a gathering however is fruitful of results just because it is small and select; by its smallness it gains the unity of purpose which numbers lose, and by its selectness the expert quality. The larger group develops high enthusiasm, but it does not easily display a singleness of purpose, or concentrated will which persists in the face of obstacles. Emotion it possesses, but execution and intelligence on the whole decrease, other things equal, as the numbers increase. And even at meetings of learned societies, it is unusual for discoveries to be made; they are generally made by the scientist working alone. There is, undeniably profit in mental cooperation, exchange of ideas and mutual criticism. In fact, such cooperation is indispensable to most thinkers. But note that the greater the intellect the smaller is the number of colleagues with whom the expert needs to cooperate, and also that he draws profit from the discussion as a rule in the solitary reflection which succeeds it.

And further, even in the cooperation of experts, one contributes more than another. One takes the initiative, others criticize; one outlines a positive thesis, others correct and modify. When a final report is drawn up, it is mainly written by one. The truth finally reached is nearer to the initial view of one than to those of the rest; that one is the one to whom greater opportunity in future meetings is likely to be given. In this way do men select their leaders, to whom they award high administrative or scientific or other positions. If we may safely generalize on the matter, it would seem that on the whole the positive and constructive work is furnished by the unique individual, the corrective, qualifying factor—no less necessary but less creative, admirable, and significant—by the social *milieu*; and the latter is of the greater value as the *milieu* is smaller.

Generally speaking, it is in the arena of action rather than thought that the principle of distinction finds its greatest emphasis. In war-time we appoint dictators. When science becomes applied we cheerfully yield to its purveyors an authority which in the theoretic realm we should hesitate to give. We humbly obey the physician, we take the advice of the engineer, the chemist, the

criminologist. In executive work we have to use the principle of centered responsibility. Even in the field of sport, where the equal level of play is apparently the ruling motive, we have to have captains and umpires. And all this is the best confirmation of the view that the principle of distinction is the more important of the two principles: for when the supreme test, the test of action, is brought to bear, that principle is the one that bears the burden of accomplishment.

It is often said that before the moral law men are equal; it is as true that after the moral law they are different. I mean that after they have made their choices, have done right or wrong, differences of character begin to appear. The great cleavage between bad and good then arises; society punishes those whose choice is injurious to society by giving them less than the equal opportunity they had enjoyed. Indeed one's whole character, so far as he is free to mould it, his whole uniqueness and thereby distinctiveness from others, depends on his own personal selection. Freedom of choice is itself a distinction, a preference of one out of a number of equally possible choices. Thus distinction is the very foundation stone of morality.

In education, the pupil is necessarily, in the respect in which he is to learn, the teacher's inferior. He must first learn by rule and rote, by discipline, and with a minimum of choice. There is no question of equality. It may be objected that this is an old and erroneous view of education, harking back to the era of brute force. The newer practise of moral suasion, however, uses the same methods, even though by means of spiritual rather than physical compulsion. The pupil must at least *trust* the teacher. As the pupil grows older, he becomes more nearly equal to the teacher, but the relationship remains asymmetrical. He can not profitably even choose all of his studies; the abandoning of the purely elective system in our colleges is the proof of this. But is there not absolute equality in the class-room, between the many pupils? By no means. Brillancy is rewarded, sloth penalized. Equal standards of grading, equal opportunity to study, recite, offer suggestions and hear explanations—these exist or should exist; but there should also be incentive for the embryo genius. Nor is the object of education to produce equality, at least beyond a certain point. There is a certain minimum of information, of course, a certain liberality and tolerance of attitude, which should be imparted to all, but education aims also to foster originality and superiority. The able student is advised to continue his studies; scholarships are awarded him; to the duller no such aid is given. Education can not create ability, but it does try to develop it, and to develop most the most able. It builds upon the dictum "to him that hath shall be given." The

educator knows well that the world will look to the exceptional individuals he can produce, and his interest is unavoidably centered in those individuals.

The result of our inductive survey is then this. There is, first, in each of the great fields of human activity here considered, a fundamental duality. We find a principle of equality and a principle of distinction or superiority. In each several field, equality rules at the beginning. It knits together the parts that constitute the field. To science, all facts are equally real, worthy of consideration, and necessary; to religion, all men have equal opportunity, are initially equal before God; to morality, all are, or should be, equally free and subject to the moral law; in education, all should have equal opportunity to develop their endowments. And doubtless in politics and industry, the same equality must always be our ideal; every one should have a vote and an equal chance to work and earn a decent living, to contribute his meed to society. Secondly, however, we find that in each field *as development proceeds* the principle of distinction is involved. Some members are found sooner or later to demand a greater opportunity than others. For science, some facts are of pivotal significance and demand more study than others, some hypotheses are more fertile than others; for religion, some men are seers and are selected as priests; for morality, the better ones must be given opportunity commensurate with their deserts; in education, the geniuses must be favored; and in politics the suffrage of all should lead to the conferring of power upon specially gifted experts, whether as representatives or as executives. And in every field, the conferring of greater opportunity upon the selected ones is followed by order and progress.

The organic view, by which individual and society are deemed always interlocking and interpenetrating, is a symmetrical view; the position here defended is asymmetrical. Or better, it is partly symmetrical and partly asymmetrical. While individual and society are in great measure mutually supporting, the individual factor's part is the deeper one. From exceptional individuals, as from dynamic centers, originate forces which spread and mould society, which in turn reacts and moulds the individual. By emphasizing the interdependence alone, the organic view misses the inequalities, the nodal points, the novelties which the individual factors provide, and which save humanity from being reduced to the dead level of each-involving-all, every-man-equally-important-to-the-whole. It misses the odd, incalculable chance-variation which the individual now and again furnishes, the motive of dash, brilliancy, and adventure; the romantic quality, in short, which a balanced organic unity, the model of classic perfection, will never display.

It is, in fact, quite false to assume that man is *not anything whatsoever* of and by himself alone. We might know that so one-sided a view is bound to be mistaken; and it needs but a little unprejudiced observation to reveal aspects of life wherein one may be and often is quite sufficient unto himself. In the enjoyment of art's masterpieces, in exquisite, uncommunicated moments of spiritual exaltation, and at the other extreme in the simple sensual pleasures, we have sufficient refutation of this social-relation view. And it would seem that no educated thinker should need such instances, for it was long ago objected that if no individual is aught of himself, he can not become aught by relation to others who are naught of themselves. Why do we not see that the social relation theory is just as exclusive and narrow in its own way as was the older individualism? The truth is that man is in some ways and to some degree fairly complete by himself, and in other ways and perhaps to a greater degree dependent on his fellows.

These being the two underlying and unequally weighted ideals in the several fields of man's culture, what are we to say of democracy?

The natural view historically is that democracy is in line with equality, and if not opposed to superiority, at least neglectful of it. We should then say that the democratic ideal asserts "all men should have equal opportunity to develop their contributions to society." This coincides roughly with the meaning of the motto "liberty, equality, fraternity," with the statement that "all men are born free and equal" so far as that statement is true, and with the ideals of equal privilege for all classes which govern so much of current ethics and socialism.

But if so, democracy is clearly one-sided and therefore dangerous. By neglecting, even if not explicitly denying, the need of initiative and leadership, it tends toward an all-leveling type of society of which Bolshevism is the extreme case. Much of the criticism of our present administration is due, I think, to the feeling that it is facing too nearly in this direction—and I share that feeling. There is, however, a fairly widespread belief that if the principle of equal opportunity were realized, the other principle would take care of itself; and if this is true, then democracy even in the one-sided interpretation is far from dangerous, being rather the one guarantee of social stability and progress. But it is not true. It does not follow that men do justice to the motive of distinction, once the principle of equality is assured. In fact in our society to-day there is a strong current which sets in the opposite direction. But even were this not the case, equality merely of itself does not involve the emergence and selection of superior individuals; not, at any rate, of the requisite quality and degree.

That equal opportunity entails the selection of those who have achieved more than their fellows, and the conferring upon them of greater opportunity, is not usually the fact. In science, as has been indicated, it needs a special effort on the part of the investigator to single out the fertile hypothesis and the pivotal fact. In morals, the freedom to do one's duty by no means ensures the doing of it, nor are the faithful necessarily rewarded according to their faithfulness. In education, the equal opportunity of the recitation-room hardly guarantees that the genius will further pursue his studies; special opportunity, in the form of financial aid and expert guidance, must be added. In the learned society even, where discussion is free, it does not always follow that the most intelligent view will win the day; it demands arduous labor to ensure its proper emphasis in the resulting decision. Equal opportunity no doubt makes these possible; but it is far from sufficing to produce them. To speak in Aristotelian terms, it is the potential factor of progress; the actualizing cause lies in the strenuous toil of men more highly endowed than their fellows. Such toil no laws, systems, or institutions can guarantee beforehand—effort alone will do it. But that effort needs encouragement; whereas a society which puts a premium upon equality and social fusion discourages it. Progress is no necessary result, fatally determined when we equalize privileges. The persistent effort, the "heave of the will," by those who see further than their fellows, alone will bring it about.

And many men will probably admit that we need not only the one but both principles, equal opportunity and selection of superiors; and that we need also to exercise special care with regard to the latter. And because they love democracy, and are unwilling to admit inadequacy in the notion, they prefer to interpret it to mean a union of the two ideals, each contributing to the other, each meaningless without the other. This is the organic view of democracy.

Yet, appear though it does to be broader, it is one-sided and inadequate. As above indicated, it misses the asymmetry of life and of human needs. It forgets that there is a primacy among equals; that the leader is greater than the led, and deserves more attention and nourishment. The organic view, seemingly inclusive, is really exclusive; by insisting that the individual is everywhere dependent on society, it excludes the free individual, independently originating what others can not originate, *starting* a social process which is carried out indeed by the cooperation of society. Thus, though it looks to embrace both individual and social organism, the organic view of democracy really loses the former, and returns to the motive of equality alone. For in the social organism, all members are, just so far as it is an organism, equally nec-

essary; hence the motive of equality is the only motive genuinely accepted. In the same way Hegelian idealism, with all its synthetic motive, failed to include realism. The only way to ensure the inclusion of the individual is to include him as by himself, independent of society—which is to take him as a *creator*, to emphasize his function as positive.

It would be in any case impossible to preserve long an even balance of these motives; selection is too deeply ingrained in the nature of men and things. As well might one expect to walk by putting both feet forward at once. That is why, with the decline of the older aristocracy, we tend to proceed to the other extreme of the all-levelling sort of democracy.

But what concrete difference does all this make?

In the first place, while it does make a great deal, that difference will consist in a multitude of minor acts, and attitudes, rather than in some tangible social or material product. It is intangible; it can not be exhibited to the people's gaze. There could not be a party, a sect, devoted to the emphasis of distinctiveness, as there is a Socialist party, a Labor party, and endless "social reform" clubs. It is a matter of slow education, an inner spiritual process demanding some solitude and obscurity. In the degree in which genius gets hardened into organization, it is likely to lose spontaneity and sincerity. This is an old truth which we are forgetting, illustrated by the whole history of the Christian Church and even more in the lives of politicians. The motive of publicity is to the spiritual evolution here urged a thing of evil. To the public-loving American, of course, this is an absurdity; with his admiration for the concrete he confuses accomplishment with material production, and points with pride to institutions organized, societies founded, to journals full of debates, to buildings. But these things are only to a small extent the condition of advance; they are mainly a necessary by-product or at most a result. The cultivation of the spiritual side is the valuable thing. To be sure, nobody denies the desirability, the necessity even, of organizations—provided we do not have too many. It is all a question of relative emphasis. Publicity and pomp are the fruit and flower, education the roots, which lie and do their work in the dark. And even the ascending sap is not seen.

Still, more definite differences than this would follow. In one or two fields at least, rather specific corollaries may be drawn. Thus, in religion, we unquestionably need more of the spirit of worship and prayer, more thought of the Deity, and a more intimate relationship to Him, with less insistence upon social work and morality. These latter have lately tended to crowd out the worship of

God and of the love of God,—which is the foundation-stone of religion, the source of the strength it bestows upon men to live moral lives. Clergymen, anxious to appeal to their congregations, feel that they must adapt religion to the prevalent over-emphasis of social problems, and thereby religion loses much of its character as a haven of rest and reservoir of strength to the weary reformer. In this respect we must admit that Catholicism is far ahead of Protestantism. It is a beautiful irony that the Protestant, standing originally for the individualistic principle of private judgment and independence, is making more concession to the motive of social fusion, the fashion of the day, than the Catholic.

In education it seems desirable to establish a system of pass-and-honors courses, whereby those who display special powers are given greater opportunity than the rest, to an extent which our present system hardly permits. If I am correctly informed, this was not long ago proposed at one of our large universities, and was rejected on the ground that it was undemocratic. That is certainly the case, in the more usual meaning of "undemocratic," but it is a reason for accepting the system. We need an education which will encourage dissent from the majority-opinion; at present it rather discourages such dissent.

But also we must have a change of heart in the unofficial social relationships. Said a European to me, "How gregarious you Americans are!" It would be difficult, indeed, to exaggerate our gregariousness. The number of associations, clubs, groups, committees even, which many of us belong to, is truly marvelous. I know several cases in my profession, of men who began careers full of promise, only to be swamped by a tide of committee-work, offices held, reports to write or read, meetings they must attend, and so on. These men, by their own testimony, long for solitude, for leisure to think. All in professional circles, and presumably in other circles, know such instances. Of the young this is also true. The able college student is too often exhausted by the number of his college activities, literary, social, religious, dramatic, even athletic—anything to bring out the powers of cooperation! When have they time to develop habits of thoughtfulness? They will certainly not get it later. One wonders if there are not as many societies—social clubs, professional associations, leagues, lodges, *etc.*,—as there are individuals. And yet it is being suggested that we have more and more—guilds, neighborhood groups, occupational groups, school centers: as if the poor, struggling, sweating citizen who tries to be in the forefront of the social wave were not already tired out. But always with too much energizing goes too little energy. It is oversocialization that has so increased the "pace that kills" as to make

"nervous breakdown" one of our commonest maladies. If we could but have the courage to resign from about half of the societies we belong to, and thereby to save a little strength for the prosecution of our own work, to play with our children, to spend a few days in quietly doing *nothing!* The excess of group-influence is seen in other ways than exhaustion and unproductiveness. It inhibits freedom. One is constantly being engulfed by some social wave or popular craze. Twenty years ago everyone—old men and women, little girls and boys—had to ride the bicycle. The excuse then was that it did one good to get out of doors, but the real reason was that all the people did it; for after a few years the custom vanished. But for a time many people were afraid not to ride the bicycle. That craze was followed by a golf-playing one, where the universality of the practise resulted in many odd spectacles. In late years we have the excess of motoring: many people own cars who can not afford to do so—because others own them. Soon, no doubt, there will be a riot of flying. But the great wave which is now overwhelming us is one of giving. We must feed every one in the world; is it not selfish to refuse? We must borrow in order to give. And the freedom of giving disappears, when we are pursued on the trains, in the street-cars, to the doors of our homes, and besought to give. Private begging has been replaced by public begging—and we dare not refuse, so great is the social pressure. How can I become a nobler spiritual being when I give away what my family needs, because I am forced by fear of public reproach to do so? Not only does over-socialization tend to kill the very brotherly love it was designed to foster; it kills also the virtue of thrift and foresight, of providing for one's own family's future, the education of the children. Another most striking example of these social water-spouts is the prohibition-measure just adopted by our nation. Total prohibition is an extreme, a form of intemperance, as much as drunkenness is. I know men, not a few, who had never been advocates of prohibition, had in fact long derided it, yet who in the last year suddenly began to find reasons for adopting it. One of the commonest is that one does not believe in total abstinence for one's self, but for the sake of the poor inebriate who can not control his desire. Thus the social motive is again invoked; and thousands of temperate men are compelled to deprive themselves of a natural, simple and harmless pleasure. The hope of the situation is, however, that these popular waves subside as quickly as they come, and there must before long be a reaction from all such forms of intemperance. One is often tempted to say that the American character is essentially an intemperate character; but I do not believe the intemperance is due to anything more than the present over-emphasis of the social motive.

In the linguistic field we find a like phenomenon. It is natural that the majority of people use slang phrases; and to this it is prudish to object. What is abnormal is that the *littérateurs* and linguists do so, and put those phrases into the dictionaries. The theory of language becomes quite equalitarian: whatever the people use is good, taste being replaced by popularity, good use by use. The experts do not wish, and perhaps they do not dare, to set themselves up as better than the crowd. That current slang has little merit is shown by the brevity of its life; it seldom outlasts two or three years. Instead of elevating the people's standards, this cult of equality lowers the standards of the educated. Is this a condition of progress in English? We may be, indeed, developing a *new* language, but it is so unstable, so subject to popular mood, that it can hardly solidify into an identifiable tongue, or even dialect.

The potent microbe that infests the doctrine of democracy, whether that democracy be conceived as equality or as the social organism, is fear of society. When all is said and done, men fear nothing so much to-day as being considered solitary, or unsocial, or eccentric. Let every man search his own heart and verify this statement. Man's old weakness was physical fear, now universally despised. Perhaps the day will come when social cowardice will be equally detested. At present, excusing itself too often by the one-sided doctrine that man is wholly a social being, it has suppressed the natural growth of the instincts in man which make for independence, and whose development alone can produce individuals who are but to lead the way forward.

The defect of democracy, *viz.*, over-socialization and social cowardice, can be overcome only by a gradual spiritual education which will restore our vanishing respect for the more valuable elements of society, independent leaders.

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ON THE EXTENSION OF THE COMMON LOGIC

CERTAIN remarks on the generalization of the common logic and on the construction of other systems of inference, which the writer addressed to the members of the Philosophical Association at the meeting of December, 1917, have called forth a good deal of unpublished criticism.¹

¹ See the articles, *Aristotle's Other Logic* (*American Journal of Psychology*, Oct., 1918, pp. 431-434), *Non-Aristotelian Logic* (this JOURNAL, Aug. 15, 1918), and *On the Construction of a Non-Aristotelian Logic* (*Monist*, July, 1918).

The devotees of the older logic count our generalization absurd, because, to them, its results appear meaningless, albeit they are meaningful enough to the logician of the newer schools. They would impose upon the terms which enter into the Aristotelian syllogism the condition that these terms should remain distinct; and their motive is clear enough. They can not (nor can any one), on the old understanding of inference give a meaning to an implication such as²

$$E(aa) \text{ and } A(ba), \text{ implies } E(ba),$$

the form which "Celarent" takes on when the subject and predicate of the major premise have been identified.

In order to set aside the restriction that the terms of the syllogism shall remain distinct, the logician must resort to a device familiar enough in the history of science. Just as the mathematician, when he meets for the first time equations of a certain type (those, namely, in which the discriminant is less than zero) must extend the meaning of quantity so as to include the case of imaginary quantity, so the logician in the present circumstance must extend the meaning of implication to include cases like the one in question.

In the example above he may postulate the major premise to be an absurdity and may assert, that, if an impossibility be true, then any conclusion will follow and that consequently the mood of the syllogism remains valid—or (in more technical language), if one of the premises becomes *null*, the antecedent vanishes as a whole and the consequent is implied.

The motive which calls for the removal of those limitations which the older logician placed upon the meaning of his symbols, is nothing more than the demand that our terms shall be able to take on all specific meanings, while the propositions into which they enter shall remain true, and that this truth shall be retained by extending the meaning of our symbols of relationship.

"If Caesar be Socrates, then the moon is made of green cheese," or again, "If the moon be made of green cheese, then the angle-sum of the triangle equals two right angles," are applications of this extended meaning which common sense accepts more readily than the cumbersome mechanism of the ancient scheme of inference. But the motive that prompts us to generalize restricted notions, is a practical one as well. Without the concept of the null-proposition, those dialectic traps of the Cretan liar and the court case of Protagoras and

² In what follows we shall represent the four traditional categorical forms by $A(ab)$, $E(ab)$, $I(ab)$ and $O(ab)$, the small letter written first in the bracket standing for subject, the one written second standing for predicate.

his pupil Euathlus might have passed forever unexposed.³ In point of fact, the paradoxes of the Greek sophists, which were such a potent spur to the Stagirite's great systematic effort, are many of them beyond the power of his *Organon* to solve; and for this very reason, that his system is surrounded by historical accidents that only in recent years have come to be removed.

Let us now illustrate the advantage to general theory of giving a meaning to the propositions $A(aa)$ and $I(aa)$ —the ones that result on the identification of subject and predicate in the affirmative forms. Suppose that it were required to deduce all of the two hundred and thirty-two invalid moods of the syllogism from the fewest possible number of initial assumptions. In what follows we shall assume that a valid implication must remain true, when as many terms have been identified as we desire. Accordingly, the invalidity of any mood is established, whenever we can point to a special instance of its being untrue. The ordinary forms of immediate inference, which are invalid, will be taken for granted and the propositions, $A(aa)$ and $I(aa)$, will be suppressed, whenever they appear in place of a premise, as adding nothing to the antecedent (or, in more technical language, they will be suppressed as if they were unit multipliers in ordinary algebra). The examples which are set down below will be enough to suggest a general method of reduction, which will yield the moods that are not resolved by the postulates given later on.

I. Suppose that IOO (third and fourth figure) were valid. Identifying terms in the major premise and suppressing the part $I(aa)$, the mood of the syllogism reduces to an invalid mood of immediate inference, *viz.*, $O(ac)$ implies $O(ca)$. Consequently, these two moods of the syllogism are invalid.

II. By the method of the last example AAA (second and third figure) will reduce to $A(ac)$ implies $A(ca)$. The moods, AOO (first figure) and OAO (first figure) are of an exceptional character, for they can not be reduced by the method in question. But AAA (second figure) yields the first on interchanging contradictories of minor and conclusion and AAA (third figure) yields the second on interchanging contradictories of major and conclusion (see under postulate (2) below).

III. Suppose EAI (first figure) were a valid mood and identify terms in the minor premise. The result is an invalid mood of immediate inference. Accordingly, EAI (first figure) is an invalid mood of the syllogism. Now EAI (first figure) yields EEO (second figure)

³ For a modern and rigorous solution of the *insolubilia* as well as for an account of their history see *The Paradoxes of Mr. Russell* by Dr. Edwin R. Guthrie, Jr.

on interchanging contradictories of minor and conclusion (see under postulate (2) below).

This last result, whose invalidity in the other figures follows at once by simple conversion in the premises, will yield invalid moods of the syllogism that can not be otherwise resolved. We obtain at once from *EEO*, by weakening⁴ the premises and strengthening the conclusion, and assuming that the invalidity of the mood is invariant under this operation, each one of the following moods in each one of the four figures, viz.,

<i>EEE</i> ,	<i>EOE</i> ,	<i>OEE</i> ,	<i>OOE</i> ,
<i>EEO</i> ,	<i>EOO</i> ,	<i>OEO</i> ,	<i>OOO</i> .

In order to resolve the moods that remain let us assume, in the first place

1. *E(ba)* and *E(cb)* implies *I(ca)* is an invalid mood, and let us begin by simply converting in the premises in every possible way. The invalidity of *EEI* will then be established in the other three figures, if we assume that the invalidity of a mood is invariant under this operation. If, now, the premises be weakened and the conclusion be strengthened in every possible way and if we assume that the invalidity of the mood is invariant under these operations too, then the untruth of

<i>EEI</i> ,	<i>EOI</i> ,	<i>OEI</i> ,	<i>OOI</i> ,
<i>EEA</i> ,	<i>EOA</i> ,	<i>OEA</i> ,	<i>OOA</i> ,

will have been established in each one of the four figures. The invalidity of these moods has, accordingly, been made to depend on that of *EEI* (in the first figure) alone.

Let us now assume

2. *A(ab)* and *A(cb)* implies *I(ca)* in an invalid mood, and let us suppose that the invalidity of a mood is invariant under the operation of interchanging contradictories of either premise and the conclusion. We obtain at once the theorems:

(a) *A(cb)* and *E(ca)* implies *O(ab)* is an invalid mood, or *AEO* (third figure),

(b) *AEO* (first figure) from (a) by simple conversion in the minor,

(c) *AEI* (first and third figures) from (a) and (b) by strengthening the conclusion,

⁴ *E(ab)* and *A(ab)* are said to be strengthened forms of *O(ab)* and *I(ab)* respectively and *O(ab)* and *I(ab)* are said to be weakened forms of *E(ab)* and *A(ab)* respectively.

(d) *AII* (second and fourth figures) from (c) by interchanging contradictories and converting the minor,

(e) *IAI* (third and fourth figures) from (c) by interchanging contradictories and converting the major,

(f) *EAE* (third and fourth figures) from (c) by simple conversion in the conclusion.

The other moods which follow from 2, and whose invalidity is easily established in all four figures, are

EIE, IEE, IEO, III.

The truth of a general proposition has a double justification, (1) *non-empirical*—for all special meanings of the terms, that enter into it, it remains true in the system, of which it is an element; (2) *empirical*—experience furnishes no specific instance of its being untrue.

Similarly, the untruth of a general proposition may have a double justification, (1) *non-empirical*—for some special meaning of the terms, that enter into it, it becomes untrue in the system, of which it is an element; (2) *empirical*—experience furnishes at least one specific instance of its being untrue.

Now it is rightly considered a mark of elegance of technique, that the untruth of a proposition should not be postulated on “empirical” grounds, but should rather be determined as a matter of definition. The postulates, which have been set down above and which can not be resolved by the method of reduction previously explained, are, accordingly, “empirical” and the theorems that follow from them may be said to have an “empirical” foundation. The same remark applies to those moods, which, subject to the method in question, yet can not be finally reduced to a proposition definitionally untrue. Such cases represent, therefore, a certain defect of the system, a defect however, that may well be unavoidable.

In certain formulations of implication, which the writer has called “imaginary” because some of the underlying axioms stand in contradiction to the corresponding axioms of the common logic, an untrue proposition that is “empirical” in the one system may be “non-empirical” in another. These terms are, accordingly, relative to the scheme of inference, to which they apply, their denotation, established by definition, varying within the limits which definition allows. The ideal of reducing the extent of the “empirical” foundation upon which any system rests is frequently realized at the cost of diminishing the number of true elements within the system.

HENRY BRADFORD SMITH.

WHAT IS REAL PLEASURE?

IN a previous paper we expressed the view that the historic hedonistic controversy is a hopeless enterprise. It is hopeless, we said, because it assumes that pleasure is an ineffable something known only to the possessor and capable of being rated only by him: for certainly one who does not share a secret can not, in his unblissful ignorance, assume to pronounce upon its value. We insisted that these unshared secrets, like all unshared secrets, are meaningless. Hedonism, then, must give up its hidden treasures if it desires acknowledgment that they exist. The individual who shares a knowledge of his pleasures makes of this knowledge common property. The world is then able to pronounce him happy.

We insisted, further, that this shareability is essential to any assurance that the individual is experiencing pleasure, since without it there is no way of determining whether he has a vision of the truth or only an illusion. The mirage seems to us no less a false image because an entertaining one, and no less false if it simulates pleasure than if it simulates a landscape. This shareability of the knowledge of pleasure takes us at once into the field of the meaning of that knowledge and suggests objectivity. It was, in fact, for an acceptance of the objectivity of pleasure that we argued.

Our tentative definition of this objective pleasure was "the doing of a thing for its own sake, or more accurately, that which, all things being considered, should be done for its own sake." This "should be" was the conclusion of our previous paper and shall be the starting point of the present one.

The ethical tinge in the "should be" may be allowed to imply that men do not always choose that which is pleasurable and that they ought to correct false judgments. These judgments are often false because those judging rate falsely the evidence: the day is enjoyed for its own sake, as is right, but without at the same time enjoying it as part of the year, which is wrong. We do not refer to any false arithmetic, after the manner of certain naïve hedonists, in computing a simple sum of subtraction and addition, but to the fact that human life is a totality not composed of arithmetical units, and to the fact that the individual may select the wrong totality. The ill-spent day deflects the realization of a life programme in one direction, the well-spent day deflects it in another; thus there are totalities of life which do not lend themselves to the integer analysis.

Our philosophy of pleasure must take account of the fact that life is not made up of discrete entities, but is a continuum of purposes whose fulfilment is both ever present and ever incomplete. No pleas-

ure has an unqualified value, therefore, but a value which can be determined only when the life-process is known. When this is known, or more adequately known, the experience in the past adjudged a pleasure must, perforce, be readjudged in the light of this larger knowledge as less of a pleasure, or as no pleasure at all. It may have been merely a light-hearted way of inflicting pain upon oneself.

This view will seem monstrous to those who insist that pleasure is what it is at the time it is and can not be annihilated by a later attempt to prove that it happened at the wrong time, or was accepted in the wrong way, with painful and not pleasurable results. I hear some one inquiring, derisively, if a house was not a house though now it has collapsed in a heap of ruins upon the head of its owner. If the invented objector will vary the problem so as to bring it within the realm of human purposes and make it in some wise analogous to the problem of pleasure, we may accept the instance. Suppose we classify it, for example, as a house fit to live in or as a house that adds happiness to the owner. Then, indeed, I am ready to say that it was no such house; subsequent events have shown the falsity of the earlier estimation. The house was complete but not the human life to whose purpose it had reference, and so the meaning of that house, so far as this meaning concerns the owner, could not be determined until the purposes of said owner had been revealed.

In a similar category we would place the experience called pleasure. Pleasure is nothing if not an experience, and the experience called pleasure is no less liable than is a house to be called pleasurable when actually it is painful.

The greatest pleasure is the realization of life purposes. To posit this is not wholly dogmatic. Any purpose, any pleasure suggests a larger system of which it is a part, and all parts point to the whole. Beyond that we can not go and less than that we can not justify. In any discussion, however, some things must be posited, and as we can not prove this matter so briefly let us posit as the greatest pleasure the realization of the life purposes.

Can we know such a pleasure? I think it must be admitted that we can know it. We can no more experience that knowledge in a contracted momentary experience than we can in a moment hear or appreciate an opera, a play, or a book. One need not argue that, because there is an experience of successive impressions there is therefore no experience of the opera, the play, or the book.

We have not contended that to have pleasure we must be aware of it. On the contrary, we would insist that the experience of pleasure is, as a matter of fact, to a large extent independent of the consciousness of that pleasure. If we "know" it too insistently it

changes countenance, much as an "inside" becomes an "outside" as soon as we go looking for it. This is philosophic tradition among the hedonists, but they balk at the converse, namely, that we think we are experiencing pleasure when, as a matter of fact, we are not.

Briefly, then, the pleasure which is truly and not falsely pleasure, reality and not illusion, is that pleasure which is part of the larger pleasure, namely, the realization of our purposes. When we know what those purposes are we shall know a little better what pleasure is. Even then, of course, we may be often led astray as one following a will-o'-the-wisp or a false gleam. The visual illusion of the mirage does not disappear with knowledge of the adjacent or remote landscape, but such knowledge helps us to recognize the experience as an illusion and, having recognized it as such, we are not much led astray, be it ever so perfect an illusion. We believe, therefore, that a better understanding of the geography of the life purposes will correct many a false view of what is pleasurable, and will enable us to tread the right path to the right oases, even though the mirage of pleasure tempts us to assume that we are already planted in their very midst.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Autonomic Functions and the Personality: EDWARD J. KEMPF.
Nervous and Mental Disease Monograph Series, No. 28.

This work is the result of experimental science upon psychology. Formerly the principles of psychology were the result of an individual's introspection; now it is as little allowable to deduce principles of human behavior from introspection alone as it is to deduce chemistry from the same sources.

This monograph might with some justice carry the sub-title "The Physiological Interpretation of Psycho-Analysis" for it clears up the Freudian Theories, makes them in part acceptable to the physiologist and the psychologist by removing their mystic and empiric character. To the scientist whose belief is possible only on a basis of fact proven beyond a reasonable doubt all that psycho-analysis connotes would still retain a trace of mysticism, largely because, as I suspect, the physiologist has not as yet made the necessary researches to either prove or disprove its theories.

Progress in psychology has come just as it has in other sciences. There have been long stretches of apparently arid periods when there suddenly appeared a theory apparently at all odds with prevalent belief, arousing the latter's active antagonism.

The older psychologist's methods were almost purely introspective, the swing to the opposite purely objective method was personified by the "Behaviorists." Freud was really a "middle-of-the-road man." He built up his theories not only on introspection but also on objectively observed data and said both were the result of the wishes of the individual. He thus dethroned sensation as the unit of psychological processes and in its place set up the "Wish."

Out of the "Wish" as the unit, several theories to explain human behavior grew up. Freud and his followers classified mental processes into two main groups,—conscious and unconscious. The latter are the source of the wish whose fulfilment forces the individual with or without the aid of the conscious, toward their satisfaction.

The main divergence from this theory came from Adler who saw in the repression of the self-preservative instinct rather than of the reproductive instinct the sole cause of the neurosis. This repression says Adler is conditioned by a definite organ inferiority.

Freud might therefore be called the Functionalist, while Adler with his emphasis on the structural inferiority could be called the Organicist. And now comes Kempf with his genial and illuminating discussion of the "Autonomic Functions and the Personality."

Part I. is a description of the structure of the autonomic nervous system as it relates to the principle of autonomic functions. He uses the term autonomic as synonymous with what has recently been called the vegetative nervous system and with what was formerly called the sympathetic nervous system. It is composed of two sets of reciprocally acting regulatory apparatuses whose function is to control the visceral and skeletal smooth musculature and glands. Acting through the endocrine glands it brings about balanced physiological integrations. Now the wishes (needs) of the organism are expressed by the wishes (needs) of its constituent parts and these are integrated by the autonomic system. Here we have the psychological aspect of a physiological process.

The cerebro-spinal nervous system which Kempf calls the proficient nervous system, has the function of relating the organism as a whole to its environment by means of its exteroceptors in order to satisfy its wishes (needs). A fair acquaintance with the structure of the nervous system reveals the intimate relation of these two apparatuses throughout the system.

It will thus be seen that the James-Lange theory of the peripheral origin of the emotions is scientifically being proven.

The integration of the various needs of the body, each serving its own ends but also the organism as a whole is the state called

health. Whenever any of the inherent autonomic cravings of any segment gains sufficient power to impress upon the whole organism its manner of reacting in spite of opposing cravings of other segments the organism is sick.

How does this come about? Here we come upon the psycho-analytic mechanisms such as fixation, conflict and repression.

Repression from a physiological view-point occurs when any autonomic tension can not be neutralized because the activities of the projicient (cerebro-spinal) system which are necessary to bring about the neutralization call forth by virtue of previous conditioning (Pavlov) in the autonomic system still greater tensions of the sort that produce avertive reactions in the organism as a whole.

Thus repression of an emotion, a failing to feel it, to be conscious of it is always caused by fear or distaste or disgust or the like emotions which cause avertive reactions. Thus to be more concrete, fear can repress affection, sexual love or a lesser fear. A soldier can repress his fear of death only because he is much more afraid of running away than he is of dying.

Fixation is the result of conditioning the autonomic reflexes and conflict is simply the struggle of autonomic cravings for control of the projicient (cerebro-spinal) pathways. All this is based upon the work of Sherrington, Pavlov, Langelaan, Ewald, De Boer, Mosso, Watson, Latchley, Grey, Goetz, Cannon, Carlson, Crile, Bechterew and a host of other physiologists. This is all clearly set forth in Part II. with a wealth of evidence. It is here that we get a clear view of Kempf's new formulation. Affects are seen to be the psychological aspects of autonomic conditioned visceral and postural tonicities or putting it the other way, these latter are the physiological processes that are known as emotions. What we feel as moods, affects, emotions are the result of the pressure caused by the body's needs through the autonomic system.

It is in this way that the psychologist and the physiologist are made to realize their common ground and there is done away with those artifacts of academic psychology, *viz.*, body and mind. For, says Kempf, "Consciousness may be defined as the reaction of the body as a whole to the special or sensational activity of any one or several of its parts."

In Part III. Kempf discusses the continuity and complexity of the autonomic-affective cravings, such as fear, anger, shame, disgust, sorrow, anguish, jealousy, joy and love.

"Fear is that reaction which always tends to remove the receptor from the painful stimulus and continue the retraction until the organism has succeeded in obtaining neutralizing stimuli for its re-

ceptors." Anger is the opposite in that it is a reaction that "always tends to remove the painful stimulus from the receptor and continue to do so until the stimulus is sufficiently altered so that it no longer is a potential threat but is harmless."

"Love is essentially a form of affective hunger and in man at least like hunger tends to be constantly recurrent. Its dynamic pressure is almost constantly felt in some form and its influence upon behavior when unadulterated is reproductive, constructive and creative."

In like manner affective repression, fixation, and transference are thoroughly discussed. Illuminating is Kempf's view of the Will. "Affective Conflict and Dissociation of the Personality" is the heading of a most interesting chapter which is followed by one on "Affective Progression and Regression, Readjustment, Assimilation and Sublimation."

This monograph is a distinct contribution to psychology and especially to psychiatry and is another result of the stimulus of the psycho-analytic movement. Kempf closes the book with a discussion of man's place in nature and such abstract concepts as "time and space." The reviewer can not too strongly urge all those who are interested in human behavior to read and study this book.

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Morale and its Enemies. WILLIAM ERNEST HOCKING. New Haven: Yale Univ. Press. 1918. Pp. xi + 200.

Professor Hocking's study of morale is "an attempt to help—the soldier first and also the civilian—in his task of understanding one's own mind under the special stress of war." The book is based upon first-hand information gained by the author at the battle fronts, as well as while instructor at home training-camps, and provides an interesting example of how a metaphysician, after successfully undertaking the duties of an army drill-master, can write in a way to enlist the attention not only of army officers and men but of psychologists and the general public as well.

Psychologically the center of morale is placed in cognition. Discipline, habits of confidence, determination, endurance, instinctive fears, imitations, gregarious tendencies, "affective" appeals and merely "pragmatic" maxims ("Decide first and then think accordingly,") are weighed in the light of a soldier's insight and attitude. And all are held to be either derivatives of insight or its servants. "The normal exercise of the fighting instinct is in the interest of justice," and according to Professor Hocking's experience knowledge and belief are the only foundation for the willingness to

"assert one's power" by the act of supreme sacrifice. Such knowledge and beliefs inevitably go back to principles of some sort even in the most untutored soldier. And only by such insight is it possible for *anyone* to realize corporate responsibility (in dealing with pacifism, for instance). Only by understanding that some principles are more important than others can we overcome the paralyzing consciousness of our own shortcomings. Only by realization of how important a factor the state is for the individual (as the guarantor of his every interest, including life itself) can there be any whole-hearted patriotism. There are many trenchant observations and principles set forth in this little book, whose peculiarly interesting style will extend the cause of serious philosophical thinking. It will also materially support the cause of a stronger state, upon which stronger individual lives as well as stronger social institutions depend. Much practical advice in memorable form and generally with empirical evidence is also set forth for such as contemplate active leadership.

From an ethical and perhaps logical point of view there might be a question of the author's initial dissociation of morale from moral insight (10) which occurs only when the morale of the enemy is under discussion. Elsewhere ethical insight is identified with that quality. Perhaps this is ultimately a question of finding a better word to characterize the spirit of those amazing German soldiers when they ran amuck.

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JOURNALS AND NEW BOOKS

MIND. July, 1918. *The Religious Philosophy of Professor Pringle-Pattison* (pp. 261-283): DR. H. RASHDALL. — A generous reply to the criticisms of the writer presented by Professor Pringle-Pattison in his *Idea of God*. Involves an adjustment of views relating to the controversy between idealism and realism, the relation between finite centers of consciousness and the supreme Spirit, and as to whether efficient causality can be applied to God. *A General Notation for the Logic of Relations* (pp. 284-303): C. D. BROAD. — "The object of the present paper is to offer a consistent system of notation which shall be extensible to relations of any degree of polyadicity. The notation for the logic of relations developed in *Principia Mathematica*, . . . is highly convenient for dyadic relations, . . . But it is not readily extensible to triadic and higher relations." *Dr. Bosanquet's Theory of Mental States, Judgment, and Reality* (pp. 304-317): J. E. TURNER. — Questions Dr. Bosanquet's view that

mental states are an aspect of all known reality, maintaining that such a view affords no basis of distinction between objective and subjective. Further points out the difficulty involved in holding that sense-content and ideas are symbolical, *viz.*, that the real world would be cut off from direct knowledge. *The Rights and Wrongs of a Person. Part I.* (pp. 318-344): W. M. THORBURN.—A rather animated denunciation expressed in strong and picturesque language of many conventional ideas. Inveighs against free forgiveness, denounces the morality of meekness and improvidence as that of "Levite Loafers," states that a choice of evils is the larger part of life, and decries the vulgar fallacy of a rigid adherence to principles. *Discussion: The Myth of Occam's Razor* (pp. 345-353): W. M. THORBURN.—Questions whether the phrase, *Entia non sunt multiplicanda, praeter necessitatem*, was ever employed by William of Occam at all. *Critical Notes. New Books. Philosophical Periodicals. Note.*

Watts, Frank. *Echo Personalities: A short study of the contributions of abnormal psychology towards the solution of some of the problems of normal education.* New York: Macmillan Co. Pp. 111. \$1.00.

NOTES AND NEWS

JULIAN RESTREPO HERNANDEZ

FROM South America has come the news of the untimely death of Dr. Julian Restrepo Hernandez, who died a victim of typhus fever on the 24th of last May.

Julian Restrepo Hernandez was born in Bogota (Colombia) on July 23, 1871; and, in that old, picturesque Andean city he spent his whole life. He was the son of Emiliano Restrepo Echavarria, famous for his brilliant defense of President Mosquera when the latter was impeached by the Colombian senate.

Julian Restrepo Hernandez studied in Rosario University; and there also he taught logic and anthropology until the end of his life.

He is the author of the following works: *Codificación Cundinamarquesa* (1900); *Lecciones de Lógica* (1907); *Derecho Internacional Privado* (1914); *Lecciones de Anthropología* (1917); and of a good many works of minor importance.

In his philosophical work, Dr. Restrepo is faithful to the scholastic system and his views are always in agreement with the teaching of St. Thomas. He, however, belongs to the modern school of Neo-Scholastics; and, following the spirit rather than the letter of St.

Thomas, he studies modern writers and follows modern methods of reasoning. This school is usually known as the Louvain school, because its best known representatives Mercier, De Wulf and Nys were professors at the Louvain University. In Rosario University, the same stand has been taken from the outset, and Dr. Restrepo was justly proud of being the first Neo-Scholastic in America who, discarding obsolete methods, studied the medieval problems with a modern mind.

It has been repeatedly asserted that the whole mass of Neo-Scholastic literature is a useless revival of a dead past, and is unworthy of attention because it contains nothing really new.

There is, however, in the Neo-Scholastic revival, a great novelty which has often been overlooked. This novelty consists in the very act of calling the attention of the world to centuries of intense philosophical thought, which had been discarded from the history of philosophy as a barbarous age. We have learned that it is illogical and impossible to pass directly from Aristotle to Descartes. The father of modern thought has been proved to be a logical product of medieval thought. Descartes has known St. Thomas and St. Anselm, and his *Meditations*—in so far as logical consistency and depth of thought are concerned—are inferior to the *Monologium* and the *Proslogium*. "Descartes," says Picavet, "is great by his scientific philosophy; but his metaphysics simply continues medieval philosophy without ever attaining the perfection of the latter."

In his *Derecho Internacional*, Dr. Restrepo attacks tyranny in every form, whether it originates in the ruler or in the state. According to him, the state is a human association which has no other end than the guaranty of order and justice. Military power is for him nothing but brute force, destined to protect justice and right.

Dr. Restrepo was an enthusiastic admirer of this country, and greeted the triumph of our arms as the inauguration of an era of liberty.

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THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

BERTRAND RUSSELL—THEN AND NOW

FOR the purpose of this paper I have rather arbitrarily, I suppose, divided Russell's work into two periods, that written before, and that written after the outbreak of the great war. By so doing I am enabled to point out the very different implications in what is substantially one theory of knowledge, simply through a shifting of emphasis, a change of attitude. For this reason I include with Russell's earlier work all the essays in *Mysticism and Logic*, published 1918, and his volume on *The Scientific Method in Philosophy*.

"The philosophy," says Bertrand Russell, in his volume on *The Scientific Method in Philosophy*,¹ "which is to be genuinely inspired by the scientific spirit, must deal with somewhat dry and abstract matters, and must not hope to find an answer to the practical problems of life." Yet I venture to affirm that behind "the theoretical understanding of the world, which is the aim of philosophy" and the early ideal of Russell, there is a judgment of value, a conviction—not wholly the result of reasoning—of what is good or what is the desirable life. For a philosophy in its widest sense is, I take it, simply an attitude toward life; and in its more technical usage, a critical inquiry into the validity of the assumptions underlying both the attitude and its manifestations. In other words, all philosophy is primarily ethical in its nature, a record of the adjustment of the individual to his environment, in the broadest sense of the term. And Bertrand Russell at his remotest is not half so remote from life as he would believe himself.

His early method is that of empiricism coupled with rigorous intellectualism. He has staunch faith in the ability of the mind to reach truth through relentless, rigid analysis. What such analysis reveals to him is a world of logical and mathematical relationships whose contemplation, made possible by the rigorous employment of the mind, leads, paradoxically enough, to something almost akin to

¹ Essay 1, page 17.

mysticism. For the farther Russell carries this method of analysis, the more his world seems to become transformed, translated over into another dimension, as it were, the term "being" coming to be used for classes of things which analysis reveals, but which have no concrete existence. "Such entities as relations," he says,² "appear to have a being which is in some way different from that of minds and from that of sense data;" and he goes on to demonstrate that there must be such entities as universals as well, and that their being, too, is not merely mental. Herein he indicates the two fundamental canons of realism—the independence of objects of knowledge of their being thought of or in any way apprehended by the minds which know them, and the externality of relations. This is, at least *in part*, and in its bare statement, more or less of a "common-sense" point of view. Yet in the case of Russell, as of others, it does tend to develop into something like the mystic notion of the unreality of the world of sense experience as compared with the world of "ultimate reality," the world of contemplation—in Russell's case, the world of logical and physical laws and ideal relationships.

There is something quite Greek in Russell's skeptical mistrust of the world of actual matter of fact experience.³ For all that he alludes to "the naïve faith of Greek philosophers in the omnipotence of reasoning,"⁴ he himself in his earlier writing shows a profound distrust of impulse, instinct or intuition as a guide for either knowledge or action. There is much in his early philosophy which distinctly parallels the metaphysic and the ethics of Stoicism. For him, as for the Stoic, the world has a status of its own, quite independent of our ideas about it. His is a mechanistic universe, following laws of its own, obstinately refusing to adapt itself to the ideals and the values of man's inner life.⁵ It is subject to inflexible law which is neither good nor bad. It is not nature which is good or bad, but our attitude toward nature, our interpretation of our place or function in the scheme of things. In "The Elements of Ethics," and particularly in "The Free Man's Worship," Russell steadily refuses to read into the world of nature any human values whatsoever. "Such in outline, but even more purposeless, more void of meaning, is the world which Science presents for our belief." And again, "From the fact that the existent world is of such and such a nature, nothing can be inferred as to what things are good

² *Problems of Phil.*, Chap. 9.

³ See page 396 following.

⁴ *Sci. Meth. in Phil.*, p. 5.

⁵ Here Russell seems strongly reminiscent of Spinoza as well as of the Stoics, except that Spinoza postulated the goodness of the universe.

or bad." It follows for him that complete suspension of judgment is the only rational attitude.⁶ He does not seem to question whether it be possible to maintain this attitude for more than a minute. He takes it for granted that it is possible. This dictum seems to arise from an unconscious tendency to separate the human mind and the "external" "real world" of nature, to consider man as being somehow outside nature, for all that he speaks of man as a child of nature, "subject still to her power." Our business is to see things as they are, independent of our judgment of them, and he never questions but that such complete suspension of judgment is possible. Curiously enough, Russell's very statement embodies its own refutation. Human values have no place in the world of nature, he says. Therefore we *ought* to suspend judgment. And so saying, he leaves a value-judgment on our hands. What are we to do with it?—except possibly to conclude that judgments of value are inevitable, and that ideals are as truly a part of the real world, at least so far as human beings are concerned, as mechanism and mechanical causation and the rest. And it is by unconsciously acknowledging that this is the case, that he is enabled to go on to erect a highly idealistic ethics upon his naturalistic foundation.

He starts, of course, where he finds himself. Was there ever, Professor R. B. Perry says, an absolutist who thought he could start anywhere else? And his common-sense assumption is that "since a proposition can only be proved by means of other propositions, it is obvious that not all propositions can be proved. Thus we must continue our backward inquiry for reasons until we reach the kind of proposition so simple or so obvious that nothing more fundamental can be found from which to deduce it." Again, he says, "There can never be any reason for rejecting one instinctive belief except that it clashes with others." And again, "Starting with the common beliefs of daily life, we can be driven back from point to point, until we come to some general principle which seems luminously evident and is not capable of being deduced from anything more evident." His criterion of truth thus seems to be self-evidence and inter-consistency. He does not believe that the proof of a proposition may point in a forward rather than a backward direction, be justified by its consequences when applied in action.⁷ And the result of his reasoning is a dual universe—a world of "nature," mechanistic and independent of human values; and quite distinct and separate from this world of fact a world of universal laws, of ideas and ideals—a world which may be revealed to man's reason

⁶ *Elements of Ethics*, p. 15.

⁷ Essays on "Pragmatism" and "James' Conception of Truth" in *Phil. Essays*.

and worthy of his devotion,⁸ yet existing in its own right, independent of his knowledge, desires, and opinions. Not only is mathematics [*e. g.*] independent of us and our thoughts, but in another sense we and the whole universe of existing things are independent of mathematics." Again, "When we say a thing is good in itself, and not merely as a means, we attribute to the thing a property which it either has or has not, quite independent of our opinion or wishes. Good and Bad are qualities which belong to objects, independently of our opinions, just as round and square do." Thus, as Santayana puts it, for Russell *Good* is an absolute, not a relative, thing, a primary and not a secondary quality, as it were. It is because this world of absolute values is to be disclosed through the rigorous employment of reason, that Russell, like the Stoic and the Aristotelian, is led to look upon mind or consciousness as something whose use is really to contemplate the world of universal laws, ideal relationships and absolute values. "The free intellect," he says, "will see as God might see, without a *here* and *now*, without hopes and fears—calmly, dispassionately, in the *sole and exclusive desire for knowledge—knowledge as impersonal, as purely contemplative, as it is possible for man to attain*. Hence also the free intellect *will value more the abstract and universal knowledge* into which the accidents of private history do not enter, *than the knowledge brought by the senses*, and dependent as such knowledge must be, upon an exclusive and personal point of view and a body whose sense organs distort as much as they reveal."⁹

Russell is decidedly non-humanistic in his refusal to base the laws of mathematics and logic in human reason. "Philosophers," he says, "have commonly held that the laws of logic, which underlie mathematics, are laws of thought, laws regulating the operations of our minds. By this opinion the true dignity of reason is very greatly lowered; it ceases to be an investigation into the very heart and immutable essence of all things actual and possible, becoming instead an inquiry into something more or less human and subject to our limitations. The contemplation of what is non-human, the discovery that "our minds are capable of dealing with material not created by them" is one of "the chief means of overcoming the terrible sense of impotence, of weakness, of exile amid hostile powers, which is too apt to result from acknowledging the all-but omnipotence of alien forces." "Real life," he says again, "is, to most men, a perpetual compromise between the ideal and the possible; but the world of pure reason knows no compromise, no

⁸ Cf. Spinoza's "intellectual love of God."

⁹ See *ante*, p. 394. The italics are mine.

practical limitations, no barriers to creative activity. . . . Remote from human passions, remote even from the pitiful facts of nature, the generations have gradually created an ordered cosmos, where pure thought can dwell as in its natural home, and where one at least of our noble impulses can escape from the dreary exile of the actual world." There is something quite Stoic in this adjustment to nature by withdrawing into the citadel of one's reason, in this emphasis on the need of inner freedom and independence.

The result of Russell's dual universe of fact and ideal is an ethical dualism of conduct and contemplation. In both "Problems of Philosophy" and "The Elements of Ethics," Russell emphasizes the disparity between absolute "Good" and the mere expediency of "right" conduct, a dualism which is indicated throughout his essays on "The Study of Mathematics" and "The Place of Science in a Liberal Education." The Stoic emphasis on reason as an escape from the baffling purposelessness of the world of every day, would lead, we should expect, to a sort of "Wise Man" ideal of life, and of intellectual endeavor particularly; and this, in fact, is what we find in Russell's early work whenever he even distantly approaches theorizing on questions of education. His words on "knowledge as impersonal, as purely contemplative as it is possible for man to attain;" and his declaration that "the free intellect will see as God might see—calmly, dispassionately, in the sole and exclusive desire for knowledge,"¹⁰ have the true Aristotelian flavor. It is natural, therefore, that the subject matter of knowledge should be thought of as somehow in a realm apart, quite unconnected with experience (as this term is generally thought of). In fact, from the purpose which Russell assigns to knowledge, the deliberate separation of the two would seem to be the most desirable end. It is natural, too, that Russell's idea of knowledge should be decidedly non-pragmatic. "Utility," he says, "can be only a consolation in moments of discouragement, not a guide in the direction of our studies," and again, "In the application of the results of mathematics to the world in time and space, its certainty and precision are lost among approximations and working hypotheses." He never thinks of ultimately justifying intellectual activity as the means of fulfilling any type of human need, but that of a sort of rigorous intellectual estheticism. The nearest he comes to compromise is to concede reluctantly that "the effects of mathematics upon practical life, though they should not be regarded as the motive of our studies, may be used to answer a doubt to which solitary studies must always be liable." The beauty of mathematical principles, irre-

¹⁰ See *ante*, p. 396.

spective of their consequences, is much more often on his theme. He lays stress upon the fact that not mere living is to be desired, but the art of living in the contemplation of great things,¹¹ and he tends to class as mere living all attention to merely practical pursuits. It is but logical that his contrast between fact and ideas, particular instances and universal laws, should tend toward a contrast between thinkers and doers, peopling these disparate realms. He even goes so far as to speak of mathematics as "an end in itself and not a technical training for engineers." Thus for Russell knowledge, far from being assimilated to the practical activities of men, would aim rather at the active contemplation, as it were, of esthetic interest.

It will be seen that Russell's is a distinctly non-social, or rather a-social, theory of education. The whole trend of his philosophy is toward intellectual individualism. Thought is a means of escape, rather than an integral, organic part of experience. The object of education is to make each man Stoically self-sufficient, rather than to make him better fitted to live in the world with his fellow men, each adding to the richness and meaning of the other's life. Of course, there is a sort of intellectual community among the intellectually passionate, but it is obviously a democracy limited in its range. Although Russell does speak of the refined cooperation required in all scientific endeavor, he never thinks of proclaiming, as Professor Dewey does, that "*the things which are socially most fundamental, that is, which have to do with the experiences in which the widest groups share, are the essentials; [that] the things which represent the needs of specialized groups and technical pursuits are secondary.*"¹²

The criticisms which I should make of Russell's *early* philosophy are on the whole pragmatic. Aside from any consideration of the technical problems involved in his whole theory of the nature and function of ideas, of which I have attempted only a general, untechnical exposition, what might be the social as well as the intellectual results attendant upon following the sort of programme of life and education which he suggests? It is obvious that Russell's ideal of knowledge demands a certain type of social environment in which to flourish. And the only type of environment, I believe, in which such an ideal of education *could* flourish is one in which his contrasts between entities and essences, conduct and contemplation, are carried over into the social distinction between practical and intellectual activity or, to put it more bluntly, thinkers and workers (in the popular sense of the term). The work of the world must

¹¹ "The Study of Mathematics."

¹² *Democracy and Education*, p. 225. Italics mine.

get itself done one way or another, and with the withdrawal of the intellectually passionate into the citidal of reason, even allowing for periodic "descents into the world of action,"¹³ the burden of getting it done devolves upon those who have not the leisure or the means so to withdraw. In other words, a theory of education such as this has for its correlate the existence and the maintenance of distinctions of economic caste as pernicious as those existing to-day.

Again, in spite of the fact that Russell, like Aristotle, seems to recognize the "activity of contemplation," his early attitude is essentially passive. It faces the evils of the world unsentimentally—and then solves the problem by escaping rather than by conquering them. Like the attitude of the Stoics and the early Christians toward slavery, the first solution of the problem of evil which Russell offers might, if universally accepted, become the greatest imaginable stumbling block to political or economic advancement. It may be in a measure true, as Professor Perry says, that "as in the case of science, so here also, that theory will best serve life which abstracts from life." But detachment can serve life only if it returns repeatedly and often to life to draw from it fresh vigor and substance. In any other case, knowledge is emptied of all real content by being removed from contact with the world. For a Stoic solution to the problem of the disparity between the actual and the ideal (in whatever form it may be found) is not a solution, but only "a sort of divided allegiance, according to which men continue to maintain as citizens what they condemn as human beings."¹⁴ And such an ideal of life, universally or rather popularly accepted, might easily deteriorate into a sort of intellectual fiddling while Rome burns—while children are toiling in sweat shops and cotton mills, while labor is struggling for a share in the control of industry, while consumption goes on in order that production may flourish, while human beings and human issues are judged according to canons of abstract justice and outgrown law.

There are certain qualities of Russell's early philosophy, however, which can not be overlooked. One can not but feel the moral fervor which sweeps one on—ardent conviction, sincerity and a tonic and bracing absence of all sentimentality. Russell's early work is noble as much for the spirit in which it is written as for any plan of life actually set forth. It seems strange that this so to speak un-ethical philosophy should possess a genuine ethical significance, a significance quite different, I feel certain, from that which its author intended. Strange, too, that a philosopher so anti-humanistic in his theory of values should have so vivid, so al-

¹³ "Free Man's Worship."

¹⁴ Delisle Burns: *Polit. Ideals*.

most painful a sensitiveness to the inherent value of human life as human life, of human beings as human beings. One misses, no doubt, a certain zest for life which somehow seems to need no justification. Yet Russell's are no less "brave words in which high courage glowed."

Aside, however, from any romantic appreciation of the spirit of Russell's work; aside, too, from what I may naïvely term its weakness, *i. e.*, its abstractness—for all philosophy is abstract which is not connected with life and actual experience in the greatest possible number of relationships—nevertheless it must be pointed out that it does emphasize a consideration almost as important as the social implications of his Neo-Stoicism: namely, that needs must be interpreted in a broader sense than is usual among evolutionary philosophies and their numerous offshoots, that purely intellectual needs have just as much right to satisfaction as any more practical. The problem is of course to relate the two, and such a synthesis is at least attempted by Russell in his work done since 1914.

There is a fundamental consistency in all of Russell's writings on the theory of knowledge that renders most astonishing the great change in the implications for the conduct of life which result simply from that change of emphasis which characterizes his later work. I mean that it is the world of fact which now claims his attention. It is almost as though he had lost interest in a Truth to which, as he himself says, human conduct can have no reference. It is not that he denies its existence, nor that he might not, if put to it, defend his former theories. It is simply that he is interested in more immediate things—politics and economics and education for instance. He has, so to speak, "descended" from the world of ideal relationships and mathematical truths into a world of ordinary human beings, and in this world he is working to better the state of things as he finds it. He is no doubt as much of an intellectualist as before. But there is a subtle difference. He no longer praises reason as a means of escaping from the world of things-as-they-are. "The life of the mind, although supremely excellent in itself," he says,¹⁵ "can not bring health into the life of instinct, except when it results in a not too difficult outlet for the instinct of creation. In other cases it is, as a rule, too widely separated from instinct, too detached, too destitute of inward growth, to afford either a vehicle for instinct or a means of subtilizing and refining it."

It is around the notion of *Impulse* that the whole of Russell's later theory of conduct, both social and individual, and of education, is rooted. Impulse he holds, is the basis of all of men's activities.

¹⁵ *Why Men Fight*, p. 234.

It is from the conflict or the distortion of impulses, through lack of proper direction, that most of the evils of society spring—war, economic evils, the various injustices which the domination of out-grown institutions occasions. It is true, he says, that artificially created desires and purposes have come more and more to regulate men's lives. Yet it is from impulse that all healthy activity must spring. "There is less harm in indulging a spurious impulse for a time," he says,¹⁶ "than in thwarting an impulse which is genuine." "It is not the weakening of impulse that is to be desired, but the *direction* of impulse toward life and growth, rather than toward death and decay."¹⁷

And herein lies the function of education—so to direct the *expression* of these impulses that they satisfy the individual's craving for activity at the same time that conflict with the free expression of the impulses of another is guarded against. Such a redirection is possible because "almost any instinct is capable of many different forms, according to the nature of the outlets which it finds," and because, within certain wide limits, "the instinctive part of our character is very malleable. It may be changed by beliefs, by material circumstances, by social circumstances, by institutions." The purpose, then, of education is to help create a social environment in which those impulses which are creative rather than possessive may find free and spontaneous play. And, conversely, "the most important purpose that political institutions can achieve is to keep alive in individuals creativeness, vitality, vigor, and the joy of life."¹⁸ The great indictment which Russell brings against the existing economic system is that it not only fails to afford anything like adequate opportunity for the expression of the creative impulses, but that it tends to perpetuate itself by the establishment of false standards of achievement. The problems of economics and politics are therefore one with the problem of education.

It will be seen that such a theory is truly social in its character, in spite of the importance which Russell places upon the expression of individual impulses. "If men's natural growth is to be promoted and not hindered by the environment," he says, "political institutions must, as far as possible, *embody common purposes and foster instinctive likings.*"

Such a conception of the importance and function of impulse will necessarily be antagonistic to any view of education as a *preparation* for life, rather than as an intimate and organic phase of

¹⁶ "Individual Liberty and Public Control," *Atlantic*, Vol. 120, 1917.

¹⁷ *Why Men Fight*.

¹⁸ *Why Men Fight*, p. 143.

living itself. Russell's whole contrast between purpose and impulse, and his emphasis on the need of their reconciliation, imply this. "A life governed by purposes and desires, to the exclusion of impulse," he says—"exhausts vitality and leaves a man in the end indifferent to the very purposes which he has been trying to achieve." The Russell of to-day is vastly more militant than the older Russell. "The world is *our* world," he cries, "and it rests with us to make it a heaven or a hell. The power is ours, and the kingdom and the glory would be ours also if we had courage and insight to create them." Another point of contrast with Russell's older views is that there is now no dualism of thought and activity, knowing and doing. "Education," he now declares, "should not aim at passive awareness—but at an activity *directed toward the world that our efforts are to create.*" His whole discussion of property and the labor movement, in *Why Men Fight*, emphasizes not only the necessity for concrete thought, but the *continuity* of the life of thought and the life of labor.

But quite as important as this social point of view, is his emphasis on the inherent worth of the individual as an individual, and not only as the contemplator of the Eternal Verities. Education must be founded on reverence for the personality of even little children. Russell is an individualist in education as in politics. What men need, he says, is more self-direction, more outlet for creativeness, less involuntary subservience to purposes not their own. Yet such an individualism is democratic rather than aristocratic, inasmuch as it is through the *proper* satisfaction of his impulses that the individual, far from cultivating a self-sufficient aloofness, is kept in close contact with the general life of his fellow-beings.¹⁹ The satisfaction of the ends which one's own spirit is obscurely seeking need not mean to be a detached isolated unit.

This democratic individualism, with its emphasis upon the continuity between thought and action, has certain implications for the problem of discipline in social life and in education. Just as impulse and will should be aspects of the same activity, just as the only tolerable social environment is one which fosters the free expression of the creative impulse and is itself an expression of those impulses, so the only effective discipline is that which comes from within, "which consists in the power of pursuing a distant object steadily, foregoing and suffering many things on the way. This involves the subordination of impulse to will, the power of directing action by large creative desires even at moments when they are not vividly alive." Interest and discipline should be continuous with each other. Of

¹⁹ *Why Men Fight*, p. 232.

course, Russell points out, literal and complete liberty is impossible if children are to be taught anything. Yet the teacher's aim should be to reduce this element of restraint to a minimum, fostering the discipline which springs from interest and absorption in work, rather than from external authority.

"This kind of discipline," Russell points out, "can only result from strong desires for ends not immediately attainable and can only be produced by education if education fosters such desires, which it seldom does at present."²⁰ "Where authority is unavoidable," he says, "What is needed is *reverence*."²¹ He denounces all methods of instruction which lead to passive acceptance of the teacher's knowledge. Education should foster the growth of mind and spirit, not merely cultivate "certain mechanical aptitudes which take the place of living thought."

The contrasts between this philosophy and its forerunner are obvious. It is constructive rather than contemplative, active, not passive. There is no longer an opposition between pure thought and practical activity. Not but that Russell himself might not be unwilling to concede any contradiction in the attitudes implicit in his earlier and later work. "The creative impulses of which I speak," he might say, "given free play, would find their highest expression in that theoretical understanding of the world which is the aim of philosophy." Perhaps, then, it would be better to say that the most significant difference between the older and the newer Russell is that the Russell of to-day is never abstract. By this I do not mean that he does not speak in general terms of many general subjects. What I mean is that he never loses sight of various problems and consideration—individual and social, economic, political, religious, or educational—in their relation to each other. And this concreteness, this greater adequacy in dealing with the problems of this lesser world, is due, I believe, to the fact that Russell's method is now psychological rather than logical, that to-day his idealism, while it never overlooks the justification of intellectual activity *per se* as one type of need, renders itself stable and healthy by sublimating the life of instinct instead of ignoring it.

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²⁰ *Why Men Fight*, pp. 168-170.

²¹ *Ibid.*, p. 156.

MR. BRADLEY'S NEGATIVE DIALECTIC AND REALISM

AMONG modern philosophical works Mr. Bradley's now world-famous *Appearance and Reality* is distinguished by its boldly constructive character. Even those of us who incline to the neo-realistic view find in Mr. Bradley an inspiring example of independent philosophical synthesis; while it is evident that he plays the part of "Father Parmenides" in the minds of the defenders of idealistic absolutism. One of the charms of the more ambitious speculative philosophies has always been the magnificence of their promises, their proud boast to have penetrated the veil of Mayâ and to be able to demonstrate precisely what we would feign hear, namely, that the world is, in cold logic, the abode of infinite spiritual perfection. Plato, for example, professes to lead us by pure dialectic to the view that the ultimate substance of the world is the Good; Leibniz would mount from God's possibility to his existence and hence descend to the "best of possible worlds"; while Hegel, with masterful dogmatism, would force us up the ladder of the three-fold dialectic up through Being, Nothing, Becoming, Essence, Appearance, Actuality, Subject, Object, Absolute Idea, in which last all categories find their supreme unity, and which just because it includes the notions of Knowledge and Will, is infinite and absolutely perfect Spirit. This is the philosophic tribe to which Mr. Bradley belongs, the tribe of those who would read this sorry world of time and chance as only a passing illusion, through which shines the blinding light of Infinite Spirit. Few readers will forget the remarkable passage in which Mr. Bradley delineates the perfection of the Absolute. "The Absolute does not want, I presume, to make eyes at itself in a mirror, or, like a squirrel in a cage, to revolve the circle of its own perfections. Such processes must be dissolved in something not poorer but richer than themselves. And feeling and will must also be transmitted in this whole, into which thought has entered. Such a whole state would possess in a superior form that immediacy which we find (more or less) in feeling; and in this whole all divisions would be healed up. It would be experience entire, containing all elements in harmony. Thought would be present as a higher intuition; will would be there where the ideal had become reality; and beauty and pleasure and feeling would live on in this total fulfilment. Every flame of passion, chaste or carnal, would still burn in the Absolute unquenched and unabridged, a note absorbed in the harmony of its higher bliss. We can not imagine, I admit, how in detail this can be. But if truth and fact are to be one, then in some such way thought must reach its consummation."¹

¹ *Appearance and Reality*, p. 172.

And Mr. Bradley's reader is equally likely to remember the words with which the book closes. "There is a great saying of Hegel's, a saying too well known, and one which without some explanation I should not like to endorse. But I will end something not very different, something perhaps more certainly the essential message of Hegel. Outside of spirit there is not, and there can not be, any reality and, the more that anything is spiritual, so much the more is it veritably real."²

Now as poetry this might pass; but the absolutists maintain in sober earnest that they can demonstrate that their view holds in cold logic, and at this point they come into conflict with philosophers who believe in logic, but not to the extent of holding that logic can perform such wonders as these. These philosophers are of a more coldly intellectual temperament and they discern a disturbing emotionalism in the pretentious structure of absolutistic idealism. Hence, in our own day the war between the Idealists and the Realists, between those who hold that an optimistic monism can be logically established, and those who hold that logic is unable to perform so soul-satisfying a feat. Hence also the problem of the present paper, which is as follows: To what extent is the destructive dialectic of the first book of Mr. Bradley's *Appearance and Reality* really founded in logic? An answer to this question will, it is believed, throw light on the general issue between Idealism and Realism.

The general character of this part of *Appearance and Reality* is so well known that I need spend little time in stating it. For Mr. Bradley, metaphysics is "an attempt to know reality as against mere appearance or the study of first principles or ultimate truths, or again the effort to comprehend the universe, not simply piecemeal or by fragments, but somehow as a whole."³ Did time permit I might call attention to the curious character of this three-fold definition of metaphysics, but for the present I need merely remark that it is the first of the alternatives that gives Mr. Bradley the plan of his book. First of all he must needs deal with Appearance and then with Reality. His method of discussing Appearance is what has gained him the title of the "modern Zeno" for he proceeds by showing that certain aspects of the world which are emphatically believed in by common sense and science, are, as it seems to him, self-contradictory or paradoxical in character, and that they are therefore of the nature of more or less illusory Appearance as contrasted with perfectly harmonious Reality. Among these aspects of the world as it appears to common sense and science to be thus con-

² *Op. cit.*, p. 552.

³ *Op. cit.*, p. 1.

signed to the outer limbo of Appearance are Primary and Secondary Qualities, Substantive, Adjective, Relation, Quality, Time, Motion, Change, Causation, Activity, Things and Selves. All these Mr. Bradley holds, must give way for the metaphysician before the one absolutely harmonious and self-consistent experience, the Absolute. Now if this negative dialectic can be at least so far answered that its destructive edge is blunted, the field remains open for a more realistic philosophy. Realism demands the full reality of the finite, "imperfect" and "partial" as such, and any such doctrine as that of Mr. Bradley which sinks the finite and "imperfect" in an all-absorbing Absolute must be logically destroyed before realism can confidently assert itself. I therefore set about the task of making a critical examination of this celebrated attack on the reality of the finite, a task which not a few have already attempted.⁴

Now the first chapter, "Primary and Secondary Qualities," is one which need not be closely criticized here, for, in fact, it expresses, in its own way, the important philosophical truth that Primary and Secondary Qualities are not to be separated and that the first can not be objective and the second subjective, but that both together must be subjective or objective. In his second chapter, "Substantive and Adjective," Mr. Bradley begins his destructive dialectic in earnest. What he is criticizing is the concept of substance, and, I may remark to begin with, there is little in such a criticism that I should object to. "Sugar," he argues, "is obviously not mere whiteness, mere hardness, and mere sweetness; for its reality lies somehow in its unity. But if, on the other hand, we inquire what there can be in the thing beside its several qualities, we are baffled once more. We can discover no real unity existing outside these qualities, or, again, existing within them."⁵ The obvious theory would be that: "Sugar is, of course, not the mere plurality of its different adjectives; but why should it be more than its properties in relation? When 'white,' 'hard,' 'sweet,' and the rest co-exist in a certain way, that is surely the secret of the thing. The qualities are, and are in relation."⁶ Now this is the very theory which I myself should defend. I should say that the traditional Aristotelian conception of substance is simply the expression of a naïve acceptance of the physical "thing" as the type of reality. Modern logic abandons, or at any rate minimizes the

⁴ Cf. Andrew Seth Pringle-Pattison: *Man's Place in the Cosmos*; G. F. Stout, *Proceedings of the Aristotelian Society*, 1900-1901, p. 1; Josiah Royce, *The World and the Individual*, Vol. I., Supplementary Essay; William James, *Essays in Radical Empiricism*, pp. 92-122, et al.

⁵ *Op. cit.*, p. 19.

⁶ *Op. cit.*, p. 20.

conception of the "thing," or substance, and emphasizes the concept of relation.⁷ The thing, according to this theory would be the so-called qualities arranged in a certain system or order. But this simple view Mr. Bradley rejects; and his critique of it occupies the remainder of this second and the whole of the succeeding chapter. Our wisest course here, I take it, will be to follow through the somewhat tortuous course of the argument.

(a) In the first place, Mr. Bradley argues that we can not say that "*A* is in relation with *B*," because we are "unable to clear ourselves from the old dilemma, If you predicate what is different, you ascribe to the subject what it is *not*, and if you predicate what is not different, you say nothing at all."⁸ Thus, "*C* is called 'before *D*,' and *E* is spoken of as *being* 'to the right of *F*.' We say all this, but from the interpretation, then 'before *D*' is *C*, and 'to the right of *F*' is *E*, we recoil in horror."⁹ And "if you mean that *A* and *B* in such a relation are so related, you appear to mean nothing. For here, as before, if the predicate makes no difference it is idle; but, if it makes the subject other than it is, it is false."¹⁰ Now before proceeding I may remark that this ancient Antisthenean paradox seems to be a purely verbal sophistry. It rests solely upon confusion between the "is" of identity (Mr. Wilson is the President of the United States) and the "is" of predication (Mr. Wilson is a great man). To insist that the "is" of predication must be reduced to the "is" of identity is to deny that there may be relations between terms and to reduce the world to a multiplicity of unrelated, but self-identical, atoms. Such a view is strictly self-refuting, since the very affirmation that the world consists of a plurality of unrelated logical atoms itself regards the atoms as sufficiently related to form a world. I may also take this opportunity to remark that the realistic theory of the externality of relations has never meant that the world consisted of unrelated entities, but rather that it consists of related, but yet independent entities. The distinction between relation in general and dependence as a special kind of relation is precisely the point of the realistic polemic. But in regard to Mr. Bradley's curious position that only tautologies are true, we may safely say, I think, that it is sufficiently answered by the above-mentioned distinction between the "is" of identity and that of predication.

(b) Mr. Bradley proceeds: "Let us abstain from making the

⁷ Cf. *The New Realism*; Spaulding, *The New Rationalism* (1918); Cassirer, *Substanzbegriff und Funktionsbegriff*, and Russell, *Principles of Mathematics*.

⁸ *Op. cit.*, p. 20.

⁹ *Op. cit.*, p. 20.

¹⁰ *Op. cit.*, p. 21.

relation an attribute of the related, and let us make it more or less independent;" the reason for this abstinence being the above-mentioned Antisthenean difficulty. Since we have denied the cogency of this argument, the privilege is still left to us of *not* making the relation independent. But let us see how Mr. Bradley proceeds: "'There is a relation *C*, in which *A* and *B* stand; and it appears with both of them.' . . . The relation *C* has been admitted different from *A* and *B* and no longer is predicated of them. . . . (There) would appear to be another relation *D*, in which *C*, on the one side and, on the other side, *A* and *B*, stand. But such a makeshift leads at once to the infinite process. The new relation *D* can be predicated in no way of *C*, or of *A* and *B*; and hence we must have recourse to a fresh relation *E*, which comes between *D* and whatever we had before. But this must lead to another, *F*; and so on, indefinitely.'" ¹¹ The meaning of this is sufficiently clear, and it is also clear that the difficulty is produced by making the relation independent of the terms it relates; naturally enough, on such a theory we have to have relations to relate relations and their terms *ad infinitum*. But let us remember that the Antisthenean paradox is Mr. Bradley's sole reason for so separating relations from their terms. If we reject the Antisthenean paradox, which indeed makes relations impossible altogether, then there is no reason why relations should not directly relate their terms without the intermediation of any further relations, no reason why, in Mr. Bradley's language, relations should not be attributes of the related.

These two arguments make up the core of Mr. Bradley's criticism of substance. He rejects at once the theory of the core-like substance of the thing, which seems to be merely a vague remnant of the metaphysics of common sense and Aristotle, the metaphysics which takes physical "things" as the type of reality—this he rejects at once—but he then immediately falls into difficulties with the view that the so-called thing is an order or arrangement or system of qualities. These difficulties center in the concept of relation. Against the concept of relation Mr. Bradley hurls the self-refuting proposition that "*A* is *A*" is the only possible truth, and from this self-refuting proposition Mr. Bradley deduces that an infinite series of relations is necessary to tie any particular relation onto its terms. Obviously, from the point of view of a cold-blooded realism, very little progress toward the Absolute has been made. This problem of relations, however, Mr. Bradley takes up in more detail in his third chapter, "Relation and Quality."

The conclusion which this chapter is to establish is, Mr. Bradley

¹¹ *Op. cit.*, p. 21.

says, that: "The arrangement of given facts into relations and qualities may be necessary in practise, but it is theoretically unintelligible. The reality so characterized is not true reality, but is appearance."¹² Just why practise demands that we believe in a scheme of things that is not real, Mr. Bradley does not make clear. "The object of this chapter," he says, "is to show that the very essence of these ideas is infected and contradicts itself. Our conclusion briefly will be this: Relation presupposes quality, and quality relation. Each can be something neither together with, nor apart from, the other; and the vicious circle in which they turn is not the truth about reality."¹³ This position Mr. Bradley establishes by successively arguing that (1) qualities are nothing without relations and (2) that relations are nothing without qualities. Let us examine the defense of the first thesis. The gist of the argument is contained in the proposition that the plurality of qualities "gets for us all its meaning through relations."¹⁴ But Mr. Bradley admits that there may be states of "unbroken feeling" "without any relation," but he "wholly denies there the presence of qualities."¹⁵ Now I maintain that in this admission Mr. Bradley has admitted the fundamental realistic thesis that although entities may be related they may yet be wholly independent of their relations. That is, entities may be related and *yet not be modified by their relations*. Whether or not this "unbroken feeling" is to be called "quality" or not is totally irrelevant. But let us waive this admission on the part of Mr. Bradley, and examine the other proposition that the essential plurality of relations demands that all qualities be related. Now this proposition, as it stands, I grant, but I distinguish between the relatedness of qualities, and the mutual dependency of qualities. Quality *A* may, for example, be different from quality *B*, so that the two together make up a plurality, and yet quality *A* need not be modified or affected by its difference from *B*; they may be related *and independent*. Now as the difference between independence and non-relatedness seems to me practically self-evident, I shall not here repeat the able defense of it to be found in the literature of modern realism,¹⁶ but shall content myself with having stated the distinction. I therefore assert, with perhaps undue dogmatism, that although a plurality of qualities does in very truth imply that these qualities are related, it does not imply that these qualities, *qua related*, causally modify each other. This last position, I hold, rests upon the pure dogma that all relations are

¹² *Op. cit.*, p. 25.

¹³ *Op. cit.*, p. 25.

¹⁴ *Op. cit.*, p. 26.

¹⁵ *Op. cit.*, p. 26.

¹⁶ Cf. *The New Realism*, Perry, "A Realistic Theory of Independence."

causal relations. I hold, I may say further, that the falsity of the proposition that there are no relations beyond that of causal influence, is really practically self-evident when once it comes to be clearly apprehended, and that assent to the proposition in question rests entirely upon confusion. For these reasons, and because the subject has already been thoroughly discussed, I may be excused from dwelling further upon the self-evident. I therefore grant Mr. Bradley's contention that there are no qualities without relations, but add that these qualities are not dependent upon these relations and are not modified by them. And with this we may take our leave of Mr. Bradley's defense of the proposition that there are no qualities without relations, but reminding ourselves that not having made qualities *qua related* mutually dependent, or in any way modified by their relations, his next thesis that there are no relations without qualities holds no terrors in store for us and involves us in no antinomy.

The second horn of the antinomy we are as ready to grant as the first; there are in truth no relations without qualities. But since qualities do not *depend* upon relations, there is here no paradox, no self-contradiction, and no door opened to the Absolute. But Mr. Bradley goes on to argue that qualities and relations can not be intelligibly united. But his whole argument rests upon the principle we have just rejected that relatedness excludes independence. Since for him relatedness involves mutual modification, then in every given quality there must be two aspects, one that belongs to the quality in itself and another aspect which is produced in the quality by the influence of the relation. "Every quality in relation has," he says, "in consequence, a diversity within its own nature, and this diversity can not be immediately asserted of the quality. Hence the quality must exchange its unity for an internal relation. But thus set free, the diverse aspects, because each is something in relation, must each be something also beyond. This diversity is fatal to the internal unity of each; and it demands a new relation, and so on without limit."¹⁷ All this obviously depends upon the spurious identification of relatedness with dependence, upon, that is, what the realists call the Internal Theory of Relations. Now with this we have the principle of the main body of the remainder of Mr. Bradley's negative dialectic, for on the whole it turns upon the impossibility of reconciling unity and plurality, that is, of understanding how things can be united by relations into various orders and systems.

While the irreconcilability of unity and plurality is Mr. Bradley's main theme in the remainder of "Appearance," the discussion

¹⁷ *Op. cit.*, p. 31.

in the next chapter "Space and Time" employs a different argument. It is in fact nothing more or less than a restatement of Kant's antinomies in regard to the infinite extent and the infinite divisibility of space and time. Now the modern mathematicians have a good deal to say on this subject, and it is well known that they tend to regard all the alleged contradictions of infinity as entirely factitious.¹⁸ They teach us that infinity can be thought without self-contradiction, providing we are careful not to expect the infinite to behave in precisely the same way that the finite does. In infinite wholes, for example, the axiom that the part is less than the whole does not apply, and there are just as many years in eternity as there are minutes. And if we grant infinite wholes, then we can grant that space is in fact made up of an infinite number of unextended points, and that the infinite number of these points establishes the continuity of space in a strictly mathematical sense. An analogous argument holds as to time and its instants. Now it was entirely natural that Mr. Bradley, writing when he did and in the atmosphere he did, should not have concerned himself especially with the mathematical theory of infinity, but should rather have availed himself of the Kantian antinomies just as they stood, particularly as they fitted in so well with his train of thought. Since, however, I am unable to improve upon what seems to be the decision of the mathematicians on this matter, and since the Kantian antinomies have been subjected to the most thorough criticism with the result of showing that, all sensationalistic bias aside, and Mr. Bradley does not and can not appeal to this, the concept of infinity is in all its mathematical applications a strictly legitimate concept, I may be excused from examining in detail this portion of his negative dialectic. My chief interest is with his main argument, his polemic against relations, and his view that order and system are strictly speaking self-contradictory. And I may remark that even if the modern mathematical theory of infinity should finally be disproved, the problems of infinity, points, instants, and continuity, would never of themselves offer a sufficient ground for declaring that our space-time world is unreal; rather, they simply remain as mathematical puzzles to be solved as best they can. To declare that they *can not* be solved must of necessity be an unproved statement unless the maker of it possesses omniscience, and the mere fact that they are *unsolved* can not possibly be used against so well-authenticated and undeniable a fact as that space and time are somehow real.

¹⁸ Cf. Russell, *Principles of Mathematics*, Chs. XIII., XVII., XXIII., XXXV., XLI., XLII., XLIII., LI., LII. *Scientific Method in Philosophy*, Lects. V., VI., VII., and Royce, *World and the Individual*, Vol. I., Supplementary Essay.

With this we leave behind us the "Space and Time" chapter. And we have already grasped the principle with which Mr. Bradley proposes to destroy the world. Starting from the Internal Theory of Relations (things can not be related without affecting each other) he has deduced the unintelligibility of terms and relations *überhaupt*, and hence the impossibility of understanding any sort of relational complex. Now we have seen that the Internal Theory of Relations rests upon the evidently false dogma that every relation is a causal relation. We must therefore start with the opposed or External Theory of Relations. This theory holds that in some cases at least terms may be related without mutually modifying each other, that is, terms may be related and, at the same time, independent. A typical sort of external relation is to be found in a series or order. The points of a line are related in a serial order, and yet they are perfectly independent of each other; that is, they do not affect each other. Their relations are said to be asymmetrical; that is, if *A* precedes *B*, *B* does not precede *A*; and transitive, that is, if *A* precedes *B*, and *B*, *C*, then *A* precedes *C*. It is necessary to assume an infinite number of points between any two points; thus no two points are *next* to each other, and this property is precisely what constitutes the continuity of the line in the mathematical sense.¹⁹ Now I shall try to show that this typical construction of modern logic, a continuous series united by asymmetrical transitive relations is especially helpful in getting around destructive dialectic of the sort practised by Mr. Bradley. It is by means of the concept of continuous and infinite serial orders that the modern mathematician is able to solve the supposed antinomies of time and space, and the same concept gives us the clue at least to the resolution of the remainder of Mr. Bradley's difficulties.

His fifth chapter, "Motion and Change and its Perception," illustrates what I have just been saying. "Motion," he says, "has from an early time been criticized severely, and it has never been defended with success. . . . Motion implies that what is moved is in two places in one time; and this seems not possible. That motion implies two places is obvious; that these places are successive is no less obvious. But on the other hand it is clear that the process must have unity. The thing moved must be one; and, again, the time must be one. If the time were only many times, out of relation, and not parts of a single temporal whole, then no motion would be found. But if the time is one, then, as we have seen, it can not also be many."²⁰ The solution of this difficulty lies, I believe, in de-

¹⁹ I am here omitting details; the property in question strictly speaking only defines the lowest degree of continuity, or "compactness."

²⁰ *Op. cit.*, p. 44.

scribing motion as a correlation between two series, a continuous series of instants and an equally continuous series of points; that is, motion may be analyzed into a continuous series of correlations each holding between one instant and one point. And just as points are unextended and yet make up space by virtue of the order into which they enter, and instants are timeless and yet make up time by virtue of the order into which *they* enter, so motion is made up by a continuous series of motionless correlations. Now although, according to the External Theory of Relations, entities are not themselves modified by the fact that they enter into serial orders, yet it is clear that serial orders possess different properties from those possessed by the entities taken either separately or in some arrangement other than that of serial order. Let us apply this more directly to Mr. Bradley's argument. He first shows that motion involves a multiplicity of places and times; and then that it involves a unity of places and times. These two aspects, he holds, can not be reconciled. But surely what is needed is the unity of the series of complexes "one place at one time," the unity, that is, of the series of correlations between points and instants. The multiplicity, on the other hand, rests in the infinite number of these correlations each absolutely distinct from and independent of all the rest. But, continues Mr. Bradley, "A common 'explanation' is to divide both the space and the time into discrete corresponding units, taken literally *ad libitum*. The lapse in this case is supposed to fall somehow between them."²¹ The explanation offered by modern mathematics, however, is not open to this criticism, for it involves no lapse between either points or instants or correlations between points and instants; on the contrary, it teaches that each of these series is continuous, continuous to the extent that between any two points or instants or correlations between points and instants there is an infinite number of such units.

Thus the idea of serial order seems to cancel Mr. Bradley's dialectic. And since his dialectic depends on the whole upon the consequence of the Internal Theory of Relations that relations are impossible, it will not be necessary to examine each of his arguments in detail. We may however glance over the remainder of the argument to assure ourselves that it does really rest, on the whole, on the fallacy we have pointed out. Of Change, Mr. Bradley says: "The problem of change underlies that of motion, but the former itself is not fundamental. It points back to the dilemma of the one and the many, the difference and the identity, the adjectives and the thing, the qualities and the relations. . . . Change, it is evident, must be change of something, and it is obvious further that it contains

²¹ *Idem*.

diversity. Hence it asserts two of one, and so falls at once under the condemnation of our previous chapters."²²

In the conception of Causation, Mr. Bradley finds his old difficulties: "If the sequence of the effect is different from the cause, how is the ascription of this difference to be rationally defended? If, on the other hand, it is not different, then causation does not exist, and its assertion is a farce. There is no escape from this fundamental dilemma."²³ But it is quite clear that the only possible escape consists in refusing to deny the reality of relations, and in regarding the chain of cause and effect as a serial order. In regarding the chain of cause and effect as simply an order of events united by an asymmetrical and transitive relation, the difficulty as to reconciling the one and the many disappears. Paradoxically enough, in the causal chain the various events are to be regarded as mutually independent and as not modifying each other. *Things* modify each other, and this is the metaphysics of common sense, but for science *events* succeed one another in a serial order whose general principle is expressed in what is called the uniformity of nature. These events can not be said to produce each other, or to affect each other; they succeed each other, however, in an orderly fashion. The succeeding event may be said to be independent of the preceding event, for only *things* existing at the same time can modify each other, and the later event is not yet in existence during the existence of the earlier event. Furthermore, serial order is only possible between entities which do not depend for their existence upon the serial order into which they enter; serial order is only an arrangement of pre-existing material and if the later events in a causal chain were not theoretically independent of the earlier events, no causal chain or serial order of events would be possible. Thus for modern realism, causation is a functional or external relation,—an arrangement of independent entities into a serial order, and this conception of serial order enables it to unite intelligibly unity and plurality, which, as Mr. Bradley shows, can not be accomplished by the Internal Theory of Relations.²⁴ Mr. Bradley's chapter on

²² *Op. cit.*, p. 45.

²³ *Op. cit.*, pp. 54 f.

²⁴ Professor Bosanquet (*The Distinction between the Mind and its Objects*) offers the following explanation of Mr. Bradley's polemic against identity in difference. "Diversity is present, according to Mr. Bradley, as I read him, both in primary feeling and in the Absolute. In the next place, his attitude to relational diversity is really, it seems to me, quite simple. He, of course, so far from rejecting all diversity, was one of the first who fought for and established the principle of identity in diversity in English philosophy. It was his great contention. His books are full of it. What he in principle refuses to accept I understand to be bare conjunction, without mediation by any analysis of their

Activity adds nothing in a fundamental way to his previous discussion, although certain minor difficulties are brought to light. The chapter which follows, "Things," again turns fundamentally upon the difficulty of reconciling identity and difference. The conception obviously offers no special difficulties to a relational or realistic logic, for from this point of view, a "thing" is not a "core-like substance" in which certain qualities inhere, but is merely a more or less arbitrarily arranged system or order of qualities. As a system, the "thing" is one; as a multiplicity of qualities it is many, and these two aspects, far from contradicting each other, may be said to necessitate each other. The multiplicity of aspects could not be thought, were they not regarded as united by certain relations; and the unity of the system or order would be impossible were there not a plurality of independent qualities which it united. Realistic logic agrees with Mr. Bradley in not regarding the "thing" as an ultimate metaphysical category, but instead of regarding the finite thing as an abstraction and as a partial view of the Absolute, it regards it as a more or less arbitrary and chance arrangement of disembodied qualities into various systems and orders. Every finite thing is only held together by the unity of a concept or definition or pattern, which pattern however realism regards as independent of the mind. Realism thus recognizes the partial truth of the Kantian system, which teaches that the unity of the thing lies in the concept rather than in the data of sense; it denies, however, that the concept has any *essential* relation to the mind that thinks it.

The two following chapters, which deal with "The Meanings of Self," and "The Reality of Self," respectively, contain a full and subtle discussion of the Self, which, however, would carry us too far afield were we to attempt to follow it through here. The important point for us, however, is that Mr. Bradley's basic objection to the conception of the Self in his old difficulty as to unity and plurality. "It is the old puzzle," he says, "as to the connection of diversity with unity. As the diversity becomes more complex and the unity grows more concrete, we have, so far, found that our difficulties conditions satisfactory to thought" (p. 59). Now, with all due deference for Professor Bosanquet, I must confess that this seems not to the point. Mr. Bradley's argument does not turn on the irrational or unmediated character of certain conjunctions of facts, but upon his assumed mutual modification theory of relations. Even the most luminous connection of facts becomes unintelligible if we assume that because A and B are related, they *ipso facto* modify each other; for then, as Mr. Bradley has made very clear, A at once splits up into A_1 (independent of B) and A_2 (dependent on B) and then A_1 and A_2 both themselves go through the process of dialectical disintegration. The whole difficulty comes from the failure to distinguish between relation and dependence, between bare logical connection and mutual causal modification.

steadily increase."²⁵ His difficulty comes out very clearly in his argument against the monadistic theory of the Self. "In the self," he says, "there is a variety, and in the self there is an unity; but, in attempting to understand how, we fall into inconsistencies which, therefore, can not be truth. . . . Will it (the monad) in the least show us *how* the diversity can exist in harmony with the oneness? . . . The self is no doubt the highest form of experience which we have, but, for all that, is not a true form. It does not give us the facts as they are in reality; and, as it gives them, they are appearance, appearance and error."²⁶ Now, without entering into a systematic discussion of the concept of the self, we may remark that Mr. Bradley's difficulties are all consequences of his unnecessary acceptance of the Internal Theory of Relations. From a realistic point of view, of course, the conception of the substantial or monadistic self is superfluous; it is in fact a mere transference of the crude ontology of common sense with its reliance on "things" to the realm of "mental" phenomena. But since realism is able to unite identity and difference in other realms by means of the conception of serial order, there is no reason why it should be especially thwarted by the self. The self, for example, could be an ordered series of mental phenomena, each mental state having a place in a certain temporal series. Or again, if we deny the conception of mind implied in the phrase "mental phenomena," we might regard the self as the serial order of the content of mind, which, according to the doctrine of epistemological monism, is numerically identical with a cross section of the world, being, in fact, that part of the world of which we are conscious. Or lastly, we might regard the self as a series of certain typical responses of the central nervous system. Without, however, attempting to decide as to which of these three theories is the correct one, we may say that it is quite clear that realism on any theory is able to cope with the difficulty as to the reconciliation of unity and diversity by means of its relational logic. It is thus able to save the Self from dissolution into the Absolute.

The two remaining chapters of Book I are "Phenomenalism" and "Things in Themselves." Mr. Bradley's problem here has evidently shifted, for in these chapters he is no longer engaged in demolishing the beliefs of common sense, but is refuting opposing philosophical systems. His objection to Phenomenalism is the obvious one, that it has no place for the unity of the world. The realist can easily accept this criticism if he is permitted to understand by unity, order and system. A unity behind the facts he denies, but he emphatically

²⁵ *Op. cit.*, p. 103.

²⁶ *Op. cit.*, pp. 118 f.

affirms that the facts fall into various systems, orders and series, and he goes on to insist further that these systems, orders and series are not "read into" the world by the mind, but were there from the beginning. Mr. Bradley's criticism of the thing in itself is based on the difficulty of conceiving a "thing" devoid of all phenomenal qualities.²⁷ While realism tends to uphold the independence of realities which are merely thought and not sensuously perceived (*e. g.*, relations), it would agree that a "thing" without sensuous qualities is indeed a monstrosity of thought. Realism's doctrine of epistemological monism, of course, saves it from the difficulties of the Kantian *Ding-an-sich*.

Such then is the negative dialectic of Mr. Bradley; such are the internal self-contradictions he finds involved in our finite universe. While it can not be denied that a discussion like that which we have just examined tends to rouse us from our dogmatic slumber, and forces us at least to attempt clear thinking, it ought to be equally evident from our discussion that it does not in reality give us any ground for denying that unity and diversity are mutually compatible. It does make it clear that the unanalyzed identity in difference involved in the concept of the substantial thing and its various relations must give way before some more analytic theory; but, if our argument holds, it is in the concept of system or more exactly of serial order that the solution of the problem is to be sought, rather than in the doctrine of Appearance and Reality. It is, of course, because of the desire to establish his theory of Reality that Mr. Bradley undertakes to demolish Appearance, just as Zeno long ago sought to destroy the world of movement and multiplicity in favor of the permanent One of Parmenides. A consideration of the same problems proceeding without the guidance of such a motive must of necessity lead to a less startling result.

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REVIEWS AND ABSTRACTS OF LITERATURE

Problems of Religion: An Introductory Survey. DURANT DRAKE.
Boston: Houghton Mifflin Company. 1916. 8vo. Pp. xiii + 425.

The spiritual stress of recent years has directed men's thoughts with unusual earnestness to the need of guidance in their religious aspirations and beliefs. The present book offers to the generality of

²⁷ *Op. cit.*, p. 130.

men, as well as to maturing students, a very helpful survey of the problems which immediately confront them. Its cordial reception, in lecture form, by several classes sufficiently guarantees this helpfulness; while its optimism and idealism ensure a decided moral influence for good.

The author, a professor of philosophy at Vassar College, arranges his twenty-five chapters in three approximately equal parts—historical, psychological, and philosophical. But the book presents a single, underlying thesis or drift, which seeks to emphasize a creed which the author formulates as a closing summary, a creed essentially Unitarian and ethical. In the historical chapters those elements of formal religions which make toward his conclusion receive special stress, while others are minimized or omitted, notably in the cases of Confucianism and Mohammedanism. Thus “the Algonkin ‘manitou’ and the Melanasian ‘mana,’ a mysterious potency, a vital power, recognized in things, to be reckoned with and dealt with cautiously, but not clearly personal” (p. 11), come into rather close relationship with “an ideal working itself out in the historic process, a great Power irresistibly drawing us on to some far off and unknown goal, and demanding our entire allegiance” (p. 147). The essential difference here is not in the objective deity, but in the aspirations and attitude of the devotee. It arises from the sacrifice of worldly aspirations and devotion to the realization of an ideal of right. The whole conception appears to be closely allied to the Platonic idea of God (p. 309) “as a goal or magnet toward which the creation was being irresistibly drawn.”

Such a writing is not to be judged wholly by scholarly standards; it is not solely an exposition of problems, but a polemic directed toward the solution of them. Were it the former, in spite of many finely written passages, candor would admit the charge of dogmatism and pronouncement of conclusions where the issue still lives. But the writer's purpose and the reader's need is to arrive at conclusions. The value to be sought is not information about religions or about current discussions concerning religion, but rather guidance in the formation of religious beliefs and of ethical tendencies. The book is not primarily philosophical, but a twentieth-century layman's Bible, providing a groundwork of reason for the faith which it formulates. As such it is to be valued by the need of such guidance and by the desirability of its constructive tendencies.

The considerable difficulties under which the organized forces of religion labor in their endeavor to secure active adherence, largely because of their historical creeds and associations, certainly render welcome any support to their endeavor to draw men toward righteousness. While the author's aloofness from such creeds, and his

clear avoidance of the literal divinity of Christ (p. 44) and of personification of the deity (p. 146), render his conclusions theologically unacceptable to certain churches; the main tendencies of Part III. (Philosophical) and certainly of Part II. (Psychological) serve to rekindle the religious spirit and to promote a healthful optimism and devotion to service. Professor Drake shows fanciful ingenuity in vesting the divinity of Christ (p. 142)—and the doctrine of the Trinity (p. 136)—with a transcendental meaning. Indeed, his ultimate formulation of faith clings reverently to the older forms and phraseology, touched to a significance more in keeping with the rationalistic tendencies of modern thought.

The chapters are well and clearly written, and concluded with carefully chosen bibliographies. If at times, as in Chapter X., there are general, abstract, sweeping statements to cover ground—much ground had to be covered—with insufficient concrete illustration, Professor Drake as a whole sustains the quality of his valuable *Problems of Conduct*. Though his transfiguration of prayer into a monologue of reflexion, praying to nothing definite with no effect on anything external (pp. 190–92) exemplifies a tendency to wrest the spirit in forms so as to suit his purpose, the judgment and taste of the author will usually find acceptance. He has gone far in an endeavor to pour new wine into old bottles. It is not unfair for offended conservatism or dissatisfied rationalism to use in reply his own words (p. 221): “What though creeds and rites are foolish and fanciful, so the spiritual vision is high and ennobling!”

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL BULLETIN. September, 1918. CHILD AND EDUCATIONAL PSYCHOLOGY NUMBER. *Tunable Bars, and Some Demonstrations with a Simple Bar and a Stethoscope* (pp. 293–300): P. T. YOUNG. — A research from the Cornell Laboratory—a discussion of tunable bars for pitch discrimination and some demonstrations with a sample bar and a stethoscope. General Reviews and Summaries: *Educational Psychology* (pp. 301–311): C. T. GRAY. — One hundred and thirteen references are reviewed including those on texts, educational tests, algebra, arithmetic, biology, chemistry, etc. *Child Psychology* (pp. 311–323): DAVID MITCHELL. — Fifty-seven references are reviewed including those on general discussions, language and speech development, natural education, exceptional children, special topics, experimental studies.

Mordell, Albert. *The Erotic Motive in Literature*. New York: Boni & Liveright. 1919. Pp. 250.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held on April 15, Professor G. D. Hicks in the chair. Professor J. B. Baillie read a paper on "The Stereoscopic Character of Knowledge," an abstract of which follows:

In knowledge the mind seeks to become conscious of the individuality of the object in its solid integrity. In the process of knowledge the whole energy of the individual mind is engaged and not simply one particular function. The ultimate achievement of knowledge is the fulfilment or realization of the individual mind as a single whole of individuality, existing and subsisting in interdependence with a world of equally real individual beings.

The view of knowledge as consisting in a mere linear succession of stages which are means to and subordinate to an end is set aside as inaccurate because the end is present in the process from first to last, and because the life of the mind, of which knowing is one mode, grows and maintains itself by the simultaneous cooperation of all its functions in their inseparable unity. Equally inaccurate, it is held, is the view that in knowledge the mind merely represents, reproduces and copies the real world. As contrasted with these views it is maintained that knowledge is stereoscopic or realistic in character. It is realistic in the sense that it presents the real in its solid integrity, that it is a vital activity in which the individual mind fulfils its own life, and that it is the consummation in conscious form of the nature of the real world as embodied in man's plane of existence.

The operative principle throughout all the stages of knowledge—perception, judgment, inference and intuition—is the unity of the individual mind, which is implicit at the earlier stages of knowledge and explicit at the later. In each of these stages the mind operates in qualifying different ways, each with laws and conditions of its own, which render each at once unique in itself and necessary to the full realization of the life of mind. Hence, it is held, it is inaccurate to regard any one of these types of knowledge as the primary avenue to the meaning of the real, or to regard the higher as merging within itself the contribution of the lower. It is maintained throughout that the significance of the forms of knowledge lies in their being a manifestation of a contribution to the life of the individual and not in their establishing any system of conceptions or any body of truth independent of and external to the life of the mind. Knowledge is for life, not life for knowledge, and life consists in actual living not in having lived.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

PHILOSOPHY AND POLITICAL THEORY

THE question which is suggested for examination in this paper is the relation of philosophical principles to political theories. Do systems of philosophy imply definite political beliefs? Is a thinker's philosophy of the state determined by his metaphysical position? In reason, and as a matter of fact, do theories of the state follow from philosophical premises? And, therefore, is it necessary to guard against certain types of speculation in order to further the cause of liberty and civilization?

These are not one but many questions, it may be said. Nevertheless, closer scrutiny will show that they are organically connected. And the problem which is central to them all has been suggested by the crisis of the war. Dazed by the military barbarism which threatened Europe, men sought at the outbreak of the war an explanation in this philosophy or that for the peculiarity of the Teutonic mind and its unrighteous doctrines. Nietzsche has been responsible for the war, many argued, as they discovered a resemblance between the gospel of the Will to Power and the spirit of the military party. Idealism has caused the war, others concluded, since definite elements of the German tradition can be traced back to Fichte and to Hegel. Or Darwinian naturalism has been the cause, in general by its furtherance of materialistic forms of culture, specifically through its formulation of the law of struggle as the principle of evolution.

For the purposes of this inquiry, it is not necessary to examine these assertions in detail, nor to argue the question whether any system of opinion can be held more than partially accountable for the origin of a conflict so manifestly grounded in political, racial and economic rivalries as these had developed amid an imperfect international organization. Philosophers by profession have assigned least weight, perhaps, to the asserted relation of Nietzscheanism to the war. For in spite of a certain affinity between it and the ruthless egoism of the Central Powers, the inner content of Nietzsche's teaching and the limits of his influence forbid the identification of the two. More important, and more germane to the present study, is the question concerning the influence of the remaining doctrines. Under

Idealism both fact and doctrine point to the work of Fichte. In 1807-1813 Fichte had gloriously withstood the tyranny of Napoleon. In 1913 the Germans gratefully recalled his patriotic service, praising in him the intellectual hero of the national uprising, when others, like Hegel, had held back or failed. During his later life and till the end, Fichte had been an impassioned leader of the people. In the *Grundzüge des gegenwärtigen Zeitalters* he had traced out, as he conceived it, the culminating degeneracy of the times. In the *Reden an die deutsche Nation* he summoned the Germans to repair, as they alone could do, the calamity which endangered civilization. They formed the only possible saviors of European culture. On their efforts depended the hope of deliverance from the degradation of the age. "For if ye perish," so rang out the prophetic warning, "all humanity will perish with you."

Here we have the doctrine of the supremacy of Germanism at its intellectual source and in its primary philosophical form. Fichte is honored also as the intellectual forerunner of the unity of the German people. Hegel, on the other hand, failed to share in the revolt against the conqueror. But he made a significant contribution to the Teutonic tradition by his absolute doctrine of the state. Freedom, as Hegel taught, that is the independent and self-conscious life of reason, is realized essentially through political organization. The state is the objective realization of the rational process which constitutes the world. It is the indispensable vehicle, the bearer of the spiritual order. Thus it possesses substantial self-existence, as it possesses also supreme inherent worth. Such is Hegel's great contribution to the developing tradition—a doctrine, moreover, the influence of which can be followed in later German thought.

To Fichte and Hegel, therefore, principles go back which have helped to plunge the world into the miseries of the war. Teutonic culture the salvation of humanity, the state self-subsistent and supreme—these have proved fatal doctrines, and these received their classical expression from the leaders of the Idealistic school.¹ Idealism, it has therefore been concluded, must be held responsible for fundamental errors of political theory. And to avoid the evil in the future, recourse must be had to philosophical principles of an opposite sort. Especially in America, if we wish to develop our liberal democracy, we must ground our thinking in reflection which shall not be *a priori* and absolute, but concrete, experimental and free.

¹ It is, of course, not asserted that these principles are due to Fichte and Hegel alone, or to thought alone, especially thought in its philosophical form. Of the absolute theory of the state, in particular, it would be an unwarrantable extreme to assert either that its nineteenth-century development in Germany came from Hegel alone or that Hegel's teaching had no part in this development.

The case, no doubt, is considerably more involved than so brief a sketch would make it appear. Kant also contributed important elements to the spirit of the Germans, who accepted his ideal of duty, although in later years they have filled it with a military content which he abhorred. Again, and more pertinently, the Idealists of the present day urge a demurrer to the indictment of their doctrine which possesses inherent force. It was not in the time of Idealism's power, they remind us, that military barbarism developed, but precisely in the period of its decline. German imperialism grew up in the second half of the nineteenth century. This was the age of science, of naturalism, of industrialism, of just those forces which have led so much of recent thinking away from the Idealistic positions. Idealism teaches an absolutism of the spirit, not of economic control or political domination; its goal is the establishment of a spiritual kingdom, not the attainment of military power. The latter views are more consonant with the doctrines of its empirical and naturalistic rivals. To charge them on the Idealistic philosophy is to hold it responsible for evils which follow from the systems by which in the middle of the century it was unhappily supplanted.

The argument in defense thus carries undeniable weight, although it would hardly be possible to adjudge it a complete success. In either event, however, it is evident that here we come upon a case of connection between speculative reflection and political theories. Fichte's Idealism of selfhood became the basis of his ardent scheme for the renewal of the nation; Hegel's absolute Idealism issued in his absolute theory of the state. It is not difficult, moreover, to discover similar cases in other divisions of the history of opinion. From antiquity a comparison of the political views of Plato and Aristotle at once suggests itself. Both thinkers are Idealists, both inculcate ancient doctrines of the state. But as they differ in method and in metaphysical emphasis, so there is significant variation in their political positions. Plato advocates the absolutism of the *Republic*. Aristotle is a scientific as well as a speculative genius, he seeks to bring the doctrine of his master into touch with concrete phenomena; and so we gain the more sober, balanced, in some respects tentative teaching of the *Politics*.

In the modern world, again, the political philosophy of Great Britain is notable. In the seventeenth century appears the commanding figure of Locke. The "Father of English philosophy" is keen, shrewd, empirical, practical. He always favors sobriety of judgment and adherence to matters of fact. Moderation, sound common sense, toleration are his watchwords in all departments of thought. And so in the domain of politics. Locke is born in 1632

amid the confusion of the early struggle with the crown; he lives until 1704, two years after Anne succeeds William on the throne. Thus he becomes a witness of almost the whole of the conflict which issued in our modern England; or rather, he is more than an observer, for in much of the movement he takes a personal share. And through it all the author of the *Essay* continues the incarnation of the Whig spirit in its moderate form. As he avoids excessive speculation in metaphysics, so in politics he is ever for cautious views. The empiricism of his theory of knowledge finds its counterpart in his individualistic conception of the state. He repudiates alike the theology of the high-churchmen and the divine authority of kings. It is not to be assumed, indeed, that Locke's political philosophy is a mere corollary of his speculative endeavor: on the contrary, there is action and reaction here, and both theories bear the impress of the age and of its history. But he stands out as the representative philosopher of his party; while by his metaphysics even more than by his politics he lays the foundation for English liberal thought. And this liberal tradition has continued down to the present time. From Locke to Bentham, after Bentham in the Mills, with Spencer even after the great transition occasioned by the theory of evolution and in spite of the constructive tendency of Spencer's genius, last of all in Morley, who in 1914 left the cabinet of Asquith rather than subscribe the declaration of war—throughout the centuries the movement has run true to type, reproducing from time to time the characteristics which have marked it from the first.

Within limits, then, the thesis which asserts the connection of philosophy and politics may be said to be established. A relation does exist between metaphysical principles and theories of political organization. The fundamental divisions of philosophy are epistemology and metaphysics in the stricter meaning of the term. From these follow implications concerning the more derivative branches of reflective inquiry—concerning ethics, for example, or the philosophy of religion, or the philosophy of the state. This is true in the order of reason. It occurs also in the order of historical fact. Systems and schools and individual thinkers belong to classes and types. The spirit which is manifested in their study of the more general and deeper problems reappears when they consider the analysis of life in common, the question of political obligation, the rights of individuals, the nature of sovereignty, the forms of government, in sum the idea, the authority, the functions of the state.

It is important to note, however, the modifying clause attaching to this conclusion. Within limits the principle is just. What these limitations on its scope may be, is a question which requires examina-

tion. Many cases of political theory may at once be eliminated. For political thinking is often carried on in substantial independence, individuals and communities working out their doctrines apart from speculative considerations or with scanty reference to the philosophical point of view. Even when philosophy is present and operative, it is evident that other factors also may enter—and enter reasonably—into the formation of political opinion. Thus the connection between philosophy and political theory may be neither immediate nor exclusive. And the same conclusion holds of other disciplines of a like reflective type. In ethics and the philosophy of religion concepts arise which have their origin in the special department of thought concerned and derive their meaning from the characteristic problems with which it has to deal. Ethics, for example, raises the question of human freedom, whatever be the metaphysical position from which one starts; the philosophy of religion presses home the principle of values. So also in the field of political philosophy. Absolute metaphysics tends toward absolute politics, individualism toward liberal or radical views: but either movement may be crossed or hindered by tendencies sprung up in the course of reflection on the principles of politics themselves. Political thinking may thus be independent; it may react upon thought in metaphysics or epistemology: it may even supply the stimulus or the conditions from which in given cases speculation in these more central branches begins.

The probability of such developments is increased by the influence of personal experience and the relation of politics to the spirit of the age. Questions of political conviction often call forth deep emotion. In times of stress or change they occasion passionate excitement, even though actual revolution be avoided: so the individual is swept along by the current of his time, the while he regards the issue through the glasses of his own mentality. Once more the political philosopher will be no more apt than thinkers in other departments to speculate *in vacuo*, disregarding the conditions and the needs existing in his own environment. Or rather, it is to be expected that speculation on political matters will be sensitive as few other types of reflective thought to the movements of life and history. Especially in periods when new systems of political philosophy are born, these reflect at once the crises which have conditioned them and the individual thinkers to whose activity they directly owe their origin.

In many cases these two tendencies combine their influence. Not infrequently it is a matter of difficulty to distinguish between the effect of historical conditions and the elements of doctrine which follow from individual characteristics. Nevertheless the legitimacy of the two must be estimated by different standards. The personal is

of less importance than the general factor, and despite our willingness to-day to grant the former recognition, no one doubts that it requires stricter logical control. The influence of the conditions of the time is less subject to depreciation. And it enjoys a further advantage of peculiar significance: the historical conditions form a large part of the concrete data on which the political philosopher has to base his reflective results. It is impossible nowadays to believe that philosophy is to be spun out of the philosopher's own head; or, more technically, that the method of philosophy sanctions speculation without reference to definite bases in facts. And the data for political philosophy, or considerable portions of these data, are to be found in the phenomena of political life. The knowledge of what the state has been, and of what it is, underlies consideration of what it ought to be. The course of political history, the governments which men have wrought out, the experience of the given community, its ideals and its aims—these the political philosopher must consider on peril of disaster. The thinker who neglects them may be compared to the old philosophers of nature who built up their theories without stopping to inquire what the phenomena of nature had been ascertained to be.

The effect of these limitations of the influence of philosophy on politics has found abundant illustration. Plato's ideal state, it has been often said, is a Greek state idealized. Locke, as we have noted, was at once the protagonist of empiricism and a citizen of his age. The example of Spinoza and the relation of Spinoza to Hobbes are even more suggestive. Both philosophers adopt the social contract theory of political organization, Spinoza experiencing the influence of the English thinker. But their formulations of the doctrine show points of notable divergence. Hobbes is the complete absolutist: for him the compact through which the state is formed is irrevocable; the sovereign is to be a monarch, intangiblê so long as he maintains the order and security for which the body politic exists; so also he must be above the law and invested with complete authority, ecclesiastical as well as civil. Now *a priori* it would be reasonable to expect from Spinoza a similar interpretation of political principles. In his case, if in the case of any great philosopher, the implication of the metaphysical doctrine would be an absolute view of the state, provided the connection of philosophy and politics is an exclusive law. And yet, as all the world knows, this reasonable expectation was not fulfilled: the most thoroughgoing of modern absolutists in metaphysics abandons in large measure his abstract rationalism when he approaches the problems of the political order. To the sovereign he refuses to assign unlimited authority. In his conception of govern-

ment he favors the democratic or aristocratic rather than the monarchical analysis. Above all he is concerned to safeguard intellectual and religious liberty, to assure toleration, instead of centering his proposals about the creation of a powerful state. Logically, Spinoza's metaphysics should issue in autocracy: practically he advocates popular rule. Shall we err, then, if following the example of a recent writer, we explain the discrepancy by the extrinsic conditions of Spinoza's thinking? His family, taking refuge from persecution in the Netherlands, find there the largest measure of toleration which was attainable at the time in Europe. The government which grants them this security is an aristocratic republic, not a monarchical or absolute state. And the philosopher has his personal experience. He suffers persecution of a kind which his forebears had escaped, as he is expelled from the synagogue because of his free-thinking. He understands the people better than kings or princes, as (in part) he supports himself by the labor of his hands. Spinoza the *a priori* metaphysician is an abstract pantheist: it is at least suggestive that when Spinoza the grinder of optical lenses, the persecuted Jew, considers the question of government, he favors a liberal polity.

Or if we return to the problems of the war and consider again the influence of Fichte, it becomes in his case also impossible to ignore the effect of tendencies which include elements other than those that are merely speculative. Fichte was the prophet of Teutonic superiority, he prepared the way for the unification of the nation. But the age and the temperament conditioned his results as well as abstract reflection, entering like this into his political views and affecting their development. In the beginning of his career the philosopher had been a cosmopolitan, originally, indeed, an admirer of the French Revolution and its humanitarian ideals. It was not till after the campaign of Jena and the Prussian disaster that he became the ardent national leader. The basis and the content of the movement invoked to save the age continue idealistic. But the work is now allotted to the Germans as the elected nation, it is through their devoted labors that civilization is to be redeemed. The absolute Idealist of the earliest phase had favored internationalism. The patriotic Idealism of Fichte's last years, the years of influence in European affairs, is a complex function, thought and the pressure of the times blending into one.

The conclusion then is manifest. It is hardly too much to say that it completes itself. Philosophy and politics are evidently connected. But the principle of their relationship is not simple, but compounded of many elements. Epistemology and metaphysics may supply the premises from which a philosophy of the state is actually

deduced as in reason its conclusions are grounded in the more fundamental disciplines. On the other hand, it may grow up in independence of these, and at times react upon them. Or the personality of the philosopher, above all his political experience and that of the people to whom he owes allegiance, may affect the closeness of the connection in question, may give rise to cross-currents and counter-currents of opinion, in fine, may create tendencies which essentially modify the doctrinal result. And from this conclusion corollaries follow of a certain importance for the thinking of to-day. In view of the complexity of the problem, a degree of caution is indicated in appraising the responsibility of abstract thought for the present crisis of civilization, and *a fortiori* in arguing reflexly from the bearing of philosophy on the situation to the truth or falsity of this or that particular system. Such care will bring the philosophical investigator closer to a full realization of the varied elements in the case. It will enable philosophy at large to bear its part the better in the task of reconstruction which lies before the world.

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DR. STRONG'S PANPSYCHIC THEORY OF CONSCIOUSNESS AND PERCEPTION

IN his able and thorough survey of the problems of psychology and epistemology¹ Dr. Strong propounds a theory which challenges almost equally every current philosophical system of knowledge old or new; it is a bold attempt to construct a coherent epistemology on a purely panpsychic basis, and to show that "a psychic ego can come by evolution only out of a psychic world" (p. 322)—that what "appears to us as physical is in itself psychical" (p. 2). His panpsychism is of a very marked character. It is not that Mind or Reason is at the heart of things, but "Mind has been evolved out of mind-stuff" (p. 17); and mind-stuff again is feeling or sentience (p. 11). That the ego with all its complex activities has evolved will scarcely be questioned; but in what sense and to what degree its psychic character necessarily implies a world of the same nature is a difficult problem with reference to which I should like to consider Dr. Strong's main arguments.

1. His title, I venture to think, does not quite indicate the exact nature of the subject, which seems to me to be the origin of knowl-

¹ *The Origin of Consciousness*. (Macmillan), 1918. (In some cases my quotations are abridged, and the italics my own.)

edge together with the nature of mind, rather than of consciousness in itself, or (alternatively) of consciousness as subservient to and operative in knowledge as a final resultant system;² for consciousness is only the function of mind, not its substance;³ "what we introspect is not consciousness but feeling," (p. 11); its evolution therefore must be inseparable from that of mind and its products.

As thus dependent on consciousness, Dr. Strong maintains that our knowledge of real existence is essentially at once (*a*) direct, (*b*) adventitious or occasional, and (*c*) vehicular. "That the object is independent, and knowing an attempt to exhibit it as it is independently, belongs to the very idea of knowing" (p. 172);—"Knowledge (is) really knowledge. The essences given are . . . loopholes through which we really contemplate (reality). Knowledge is the merest cobweb, but over which we may get safely across to reality" (p. 235); and it is from this realist standpoint that I wish to examine Dr. Strong's position as to the vehicular function of consciousness and the psychic character of the world of sense-perception.

2. In the first place every *function* may be said to be necessarily as such "vehicular," in the sense that it brings about a certain result or sets up a certain relation, impossible apart from the function; Dr. Strong, however, goes beyond this general principle, maintaining that in cognition there are concerned, together with the object and ego, what he calls "essences" or "given essences," which while relating them are distinct from both (p. 170). "What is given in sense-perception is not the object as an existence, but the object as an essence" (p. 36), which again "is only a presumptive revelation of an object" (p. 38),—"an entity or subsistent, a being of the logical type—a universal of the lowest grade" (p. 39).

Plainly therefore the givenness of essences is not identical with the existence of objects; consciousness is not perception;⁴ and thus there "must be added, to transform consciousness into knowledge, affirmation or belief; the implicit assumption that the given-essence does in fact reveal an existing object" (p. 39). An *assumption*, be it noted—not "inference, explicit or implicit. . . . Cognition is extremely simple; it is nothing but the givenness of an essence, and the acting as if an object existed;"⁵ so that, although Dr. Strong on the whole severely criticizes Kant, he here places cognition in the same category as the *als ob* of the Kantian system.

² Cf. Chap. X., beginning, p. 11.

³ "The function by which things are given—i. e., the same as awareness or givenness" (p. 36); also, essentially, a relation (p. 31).

⁴ Consciousness is (p. 36) the same as awareness, which itself is givenness from the "opposite end" (p. 30).

⁵ P. 40. Cf. also—"we possess a well-nigh irresistible instinct impelling us to act as if objects existed" (p. 222).

3. But this view raises at once two fundamental difficulties, in so far as, according to the implications of Dr. Strong's own theory, we seem debarred from all perceptual certainty of real existence, and therefore also deprived of any proper basis for the revelatory function which he assigns to essences.

For Dr. Strong holds that "external things alone are entitled to be called objects of perception" (p. 7)—"the proper object of perception is a thing" (p. 9)—"our theory of perception has become a direct theory⁶ . . . the idealistic and representative theories being infected with fallacy" (p. 8); and it is solely on this accepted basis of real existence directly perceived that he constructs his theory of essences to account for it. The essence is specifically contrasted with real existence; the term "means entity or subsistent, *i. e.*, a being of the logical type, not an existent either physical or psychological" (p. 39).

Now as resting on this realistic basis, the "essence" theory may be true or false; but its truth (or falsity) can be discovered and determined only with reference to this basis of accepted fact which it is an attempt to explain; and obviously if this basis itself disappears, the theory in its bearing on reality must also completely vanish with it. But Dr. Strong's arguments finally result in this basal position being converted into a mere assumption, unproved and unprovable—"It is impossible to prove that cognition is really such—that the object is there as it appears to be. Cognition can not be based on reason. Cognition has an instinct attached to it, (which) takes for granted the conditions in which it has been developed; has been evolved in a world in which there were objects to be affirmed—that is the best explanation of its existence" (pp. 220-222). But surely such an "explanation" is a sheer begging of the whole question at issue; and the two illustrations which Dr. Strong uses as being analogous to instinctive cognition are invalid, since they themselves imply prior cognition and can not therefore be strictly parallel to it.⁷ It is surely wholly illogical to construct a theory which purports to account for certain real phenomena, and afterwards to assume these very phenomena themselves; and though cognition may be allowed to take its own conditions for granted, it does not therefore follow that thought can do the same.

For to regard the validity of cognition as consisting in "a well-

⁶ That is as compared with Dr. Strong's previous view in *Why the Mind has a Body*.—"Idealistic," here as in current discussion generally, is akin to subjectivist; Hegel's usage in, *e. g.* "Every genuine philosophy is idealism" (*Ency.*, sec. 95) appears to be wholly lost sight of.

⁷ By "nutrition" Dr. Strong appears to mean food-seeking instinct; "nutrition" is a vague term denoting in the main a number of diverse *processes*.

nigh irresistible instinct impelling us to act as if objects existed" (p. 222) is erroneous in both logic and psychology;—as a criterion, it fails to differentiate between insanity, hallucinations, and normal action, which all alike, as purely *instinctive action*, would testify to real existence; but apparently this instinct demands a further criterion, for "to recognize anything as existing is to recognize the presence of a source of change" (p. 43)—and again instinctively, since change is existential. But though cognition controls and expresses itself in action, this is voluntary,⁸ and thereby implies the independent priority of cognition purely as such; all deliberate action, *e. g.*, demands and presupposes cognition; and it is sheer confusion to wholly identify cognition thus with instinctive action.

It is finally probably only an apparent contradiction that after stating that "cognition can not be based on reason" (p. 221) Dr. Strong should add that "after all, knowledge has been *demonstrated* to be really knowledge" (p. 235).

4. The theory that cognition impels us irresistibly to believe⁹ in real existence recalls some features in Locke's epistemology. The mind, for Locke, took its ideas from the beginning to represent the real world—to be appearances of real existence. "All simple ideas carry with them a supposition of a substance wherein they inhere;"¹⁰ and this indubitable implication of reality arises from the simplicity of our basal ideas together with the passive attitude of the mind towards them; although for Locke this is a necessity of thought, while Dr. Strong regards it as instinctive; and just as Dr. Strong holds that "introspection may be held to be approximately adequate knowledge"¹¹ (p. 231) and that we are thus enabled "to turn the agnostic position," so Locke maintained that we obtain an immediate certainty of experience in the existence of the conscious subject; but that these two far reaching assumptions most seriously invalidate the soundness of Locke's whole system is patent to modern criticism.

5. There are also several minor obscurities in Dr. Strong's detailed exposition of the nature and relation of essence, consciousness and things. We find that "for us to be aware of a thing is the same as for the thing to be given" (p. 30); and "what is given is solely the essence" (p. 37); therefore what we are aware, or con-

⁸ Cf. Dr. Strong's *Epilogue*—Fate and Free Will.

⁹ *I. e.*, in Dr. Strong's own sense of practical action, not mere intellectual assent.

¹⁰ *Works*, IV., 7. For this brief account of Locke's system I am indebted to Professor Gibson's recent work—*Locke's Theory of Knowledge and its Historical Relations*.

¹¹ "That to which the mind appears is introspection" (p. 5); which "to some extent fails completely to present the psychic reality" (p. 14).

scious, of is the essence (p. 170); now the essence is "a being of the logical type, and *not an existent*" (p. 39); whereas on p. 31, Dr. Strong concurs in the view that "consciousness is some sort of relation between *existing objects*."

The essence theory of sense-perception is obviously very complicated; but when it is extended to include introspection its complexity appears to amount to self-contradiction. For "the given essence is made to appear by the (psychic state) being used symbolically"¹² (p. 230); and though a psychic state may possibly be "used" in some ways unconsciously, it certainly can not, I think, be used symbolically¹³ without our first being (a) conscious or aware, or (b) cognizant of it; and then if (a) it is (*ante*) itself already an essence; but if (b) then it requires an essence, which again demands a symbolic psychic state, and so *ad infinitum*; or in other words, if we can affirm the existence of psychic states only because certain essences irresistibly impel us to do so, it is a vicious circular argument to ascribe the appearance of essences themselves to psychic states; further, on p. 78 the essence itself is equated to the appearance of an object; what then is meant by the appearance of an essence, dependent on a psychic state?

We have another instance of this fallacious procedure in Dr. Strong's treatment of the after-image. This "can only be psychical. If, as given, it is an essence it is an essence of the same kind as those given when we introspect pleasure and pain" (p. 95). We have here then a psychic state "given by means of an essence" (p. 98), but as against this we find "there are such existences as psychic states which are the means by which essences are given" (p. 79). Thus the essence is first regarded as revealing existences,¹⁴ and then as being in its turn dependent on psychic states which themselves are existences—and therefore *ex hypothesi* once cognizable only through essences—the explanation becomes obviously circular.

6. The relation which Dr. Strong takes to subsist between essences and sensations is not at all clear. On p. 130 he speaks of "the absolute difference between the essence given and the sensations by means of which it is given," which would therefore appear to preclude any very close resemblance or other connection between these. On the other hand the eye "is so constructed as to make the sensa-

¹² "Psychic states must be distinguished from essences" (p. 79), which "as such are non-psychical" (p. 89).

¹³ For a symbol presupposes a recognized distinction between itself and what is symbolized.

¹⁴ "The given-essence does in fact reveal an existing object" (p. 39)—"an essence showing us reality" (p. 76).

tion a sort of duplicate or picture of the object";¹⁵ thus the sensation (in some cases at least) closely resembles the object.—“A visual sensation (bears) in its own nature the impress of the object” (p. 122)¹⁶—and it is this characteristic of the sensation which constitutes essence—“in so far the object is given as an essence.” What then becomes of the “absolute difference” between sensation and essence?

In conclusion, after enunciating as a fundamental principle of the entire theory “that what is given is solely the essence” (p. 37) Dr. Strong asserts that “in memory . . . what is given is never anything but the thing known” (p. 113)—what is known being, again according to the theory, not essence but real existence. It is quite possible however that this, as also some of the other inconsistencies in the treatment of the whole subject might be removed by more careful phrasing; but apart from that, I think that a coherent panpsychic theory of knowledge still remains a problem for future investigation.

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PANPSYCHISM AGAIN

THOSE of us who, fifteen years ago, read Professor Strong's *Why the Mind Has a Body* with interest and admiration have been waiting impatiently ever since for the sequel then promised, which should clear up the difficulties left standing and relate the theory to wider issues than were there discussed. At last he has given us, in *The Origin of Consciousness*, a book that shows not only the same acute powers of analysis and polemic, but marked philosophic progress. The solution—panpsychism—is the same, but the apologetic has veered; and the new conception of the epistemological problem offers illumination and food for thought to many who will not accept the panpsychistic conclusion.

Because of the strangeness of the concepts and point of view, the book will not easily obtain the recognition which it deserves. It is, indeed, lacking in literary charm, and forbiddingly technical in its approach to problems which, at best, are extraordinarily elusive. Nor would any one, least of all Mr. Strong himself, claim finality for its arguments. Personally, although my own views are probably as close to Mr. Strong's as those of any other living person, and in

¹⁵ P. 129. But how we know this to be the case is far from plain; the statement seems either hypothetical or dogmatic.

¹⁶ “Objects became able to evoke impressions corresponding to if not actually resembling themselves” (p. 172).

spite of a voluminous correspondence with him upon these matters during the past few years, I have found scores of points to object to or question in the final text of the volume. But these are all matters of accuracy of phrase, or logic of argument. Upon the main issues I am convinced that Mr. Strong is right, and that he has done here a fine bit of pioneer work, which goes far toward clearing up some of the most vexing problems of philosophy.

While the whole book, as the title implies, is headed toward an answer to the question how consciousness could come to arise out of a non-conscious world, the bulk of it is taken up with answering the preliminary question, *What is consciousness?* The answer is: Consciousness is not a stuff or substance, but a function, a relation. The substance of the mind—indeed, of everything that exists—is feeling, sentience, mind-stuff. But the bare existence of this stuff does not in the least imply consciousness. It is only when a peculiar bit of sentience, in the brain of an organism, a complex bit of sentience whose nature is largely determined by messages coming *via* sense-organs from an outer object, causes the organism to react, to adjust itself, to that outer object, that we speak of the organism as conscious. The organism uses the mental state (the bit of sentience which bears, as it were, the impress of the outer object) not as its own state, a bit of its own existence, but as if it were the outer object itself. It acts, that is, as if the object had certain characteristics which the mental state in question suggests; it lives as in the presence of objects clothed with the qualities created by its own brain-life. "Consciousness" is this relation of symbolism; a psychic state is "conscious" only *qua* used as a symbol, only as the vehicle of an intention directed toward another object than itself.

To make this clear, it is necessary to explain the difference between the epistemological view here implied and the two leading realistic epistemologies now current.¹ The "old" realists hold that we never have physical objects directly "given," but only mental representations of them, from which we must infer the existence and the character of the outer objects. The "new" realists assert that the physical objects themselves (certain aspects of them) are directly "given," in perception and in conception. Both theories run up against snags which have prevented their general acceptance. Pro-

¹ Professor Strong, in his earlier book, called his view a form of idealism. In the ontological sense, this may be legitimate, since panpsychism holds the universe to be composed of the same stuff out of which minds are made, and commonly calls that stuff "feeling" or "sentience." But in the epistemological sense he is a realist, holding that this world of sentience exists prior to, and independently of, any one's consciousness of it. Consciousness is a late product of evolution; and the relation "consciousness" is a purely external relation.

fessor Strong's theory,² in a sense, transcends their divergence, by pointing out that both theories are right in what they deny, but wrong in what they assert.

The "old" realism (*i. e.*, realistic epistemological dualism, the representational theory of cognition) is wrong in holding that what is "given" is a mental state, in other words, that the data of perception and conception are psychological existents, so many pulses of the stream of psychic life. On the other hand, the "new" realists (realistic epistemological monists) are wrong in asserting that the outer existents themselves are given. What is given is—no existent at all, but an "essence," a character-complex, a logical entity. The use of this concept "essence," which Mr. Strong owes to Mr. Santayana, is the most striking advance in his analysis of the cognition-situation. In veridical perception, or conception, what is "given" is—the *essence: such-and-such-an-object, i. e.*, the *character* of the object, not the existent itself, whose own private life never gets included within the conscious field of the organism.

The neo-realists have had a vague perception of this truth. They would be right if they would recognize clearly the distinction between the nature of an object and its *existence*. There is no mechanism whereby an organism can intuit the existence of objects surrounding it; its belief in their existence remains an instinctive faith, corroborated by daily experience—*i. e.*, everything is as if they were there. But there is a mechanism whereby the organism can body forth visions of those objects, which are usually accurate enough for practical purposes, and may be entirely accurate—so far as they go. This is the well-known mechanism of ether-waves, sense-organs, nerve-pulses, associative brain-channels, and motor-tendencies. Complex psychic states are produced by this mechanism, including among their aspects the psychic counterpart of incipient tendencies to action. We thereby suppose ourselves to be surrounded by objects of a certain definite character. It is these supposed characters ("essences") that are our "data," that are "given." They are taken to be the characters of the objects about us. But there is usually a certain amount of illusion in this, and there may be any degree of illusion. For the status of what is "given" is exactly the same in true perception as in hallucination.

² It is also the theory of a group of realists (which includes Professor Strong and Professor Santayana) who have been at work for several years upon a cooperative volume in epistemology. The publication of the volume has been delayed because of the war-work of one of the group; but we hope that it will appear next fall or winter, under the title of *Essays in Critical Realism*. No other of the collaborators endorses all of Mr. Strong's views; but the *epistemological* view of the members of the group is, practically speaking, identical—more homogeneous, we think, than that of the authors of *The New Realism*.

It is always a further question how far the essence given is really the character of the existent object.

The old realists, then, were right, after all, in realizing that what is given is dependent primarily upon the organism, and only at second hand upon the nature of the outer object. Furthermore, they were right in insisting upon the duality between the mental state produced and the outer object that produced the mental state; the latter may be truly said to be representative of the former. But after all, what is *given* is not the mental state, but just an essence, which is not *the essence: this mental-state*, but (if, and in so far as there is knowledge) *the essence: such-and-such-an-outer-object*. For example, if what is "given," what I am conscious of, is a yellow dog ten feet distant and moving away from me, it is not my mental state that I am conscious of; *that* is not ten feet distant, or moving away from me. My being conscious of the particular essence: a yellow dog, *etc.*, is simply the fact that, with certain mental states existent in me, I tend to act, speak, think as if a real existent of which that is the essence, or character, is really out there beyond my organism.

"Cognition, in fine, is extremely simple: it is nothing but the givenness of an essence and the acting in consequence as if an object existed" (p. 40). "Perception is seizing the meaning that sense conveys" (p. 47). "The essence is given by means of the function of the psychic state in guiding the further course of our thought and action" (p. 103). "Givenness, then, is a natural implication of the function of sensation in guiding adjustment" (p. 130). "The givenness of the essence is due to the symbolic use of the sensations in accordance with the motor tendency" (p. 133).

The distinction between the mental state and the datum of consciousness, or given-essence, is brought out by the obvious fact that different mental states—a vivid sensation, a faint sensation, a memory or conception state—can be the vehicles, at different times, by which one and the same essence can be given, so that, for all the fluidity of our mental life, we live as in the presence of relatively stable objects. This is possible because the essence given is a mere intent, the result not of the sensation-state or conception-state alone, but of that plus the attitude of the organism, all the irradiations of that sensational nucleus. The essence is what we *mean*.

This view of cognition readily permits the nature of outer objects to be as different from the essences given in perception as reflection may indicate; permits them, then, to be psychic, *i. e.*, of the same stuff that our psychic states are made of. They would still have the nature that perception indicates, in so far as perception is veridical. They are in space, extended, of the shape and

size, and moving in the ways, that corrected perception indicates. But they have not, in themselves, the colors, for example, that constitute a part of what is "given" when we look at them.

In introspection we have another mode of cognition, which may also be very inadequate. Apart from, and prior to, introspection, our mental states just exist, a psychic stream—(but not a stream of *consciousness*, because "consciousness" is cognition). We *know* our own mental life only as we introspect it. In introspective cognition we have the same factors as in sense-perception: the object (here a feeling); the cognitive state, a persisting primary memory image; attention, and a motor-attitude. The motor-attitude is now different, however. We feel ourselves to be dealing not now with an external object, but with a state of our own sensibility. In other words, *the essence: this mental state* is given, instead of *the essence: that physical object*. But even primary memory may retain only a small part of the original feeling, and attention may be highly selective, so that what we, as a result, remember and know about our own mental states may be relatively little. The essence that is given may be only "a minute fraction or extract" of the total essence, or nature, of the existent mental state known. Introspection, then, is valid as far as it goes, but it may not go far enough to reveal the minute structure of the reality introspected.

Because of this inadequacy of both methods of cognition, there is nothing in the data attained by either method to make against the hypothesis that the reality knowable by perception of brain-movements is the same as the reality knowable by introspection on the part of the owner of that brain. If you object that brain-processes are enormously complex, while feelings are relatively simple, the answer has been already indicated. "We are endowed with certain powers of discrimination, which permit us to separate the parts of feelings from each other up to a certain limit; but beyond that limit we are powerless to separate them. These powers have been given us for practical purposes, and practical purposes do not require a high degree of discrimination. The fact of the case, then, is not that we perceive the unanalyzable feeling to be one, but only that we are unable to perceive it to be many. This, of course, in no way interferes with its actually being many. And we can set no limits to the extent of its manyness" (p. 310).

The apparent unity of the mind is discussed at considerable length, and very carefully analyzed. There are many aspects to it, but the most important element of unity is that given by attention and motor-reaction. The unity of a peculiar datum—a particular essence that is "given"—consists in the fact that we react as to one thing instead of as to several. "Objects must be thus made

into wholes, otherwise we can not attend to them" (p. 281). And the only unity joining together all the data that go to make up our "field of consciousness" is the fact that they are simultaneously given. This does not in the least imply that the mental states are unitary things. On the contrary, there are strong reasons for believing them to be highly complex. Nor is the mind-stuff that makes up an individual mind peculiarly isolated from the rest of the universe. It is merely cognition that is limited. The amount of simultaneous perception, memory, conception, imagination, and introspection that an organism can carry on simultaneously determines what shall be included in and excluded from that organism's conscious field.

Thus two great difficulties in the way of an evolutionary theory of consciousness are cleared away. The first difficulty lay in the apparently miraculous nature of knowing—the "self-transcendence" which it has seemed to involve. It becomes possible to explain this naturalistically as soon as we see that the existent known does not, as an *existent*, get into the knower's field of consciousness, but only as an *essence*, *i. e.*, its *nature* is "given," becomes a part of our world of discourse, and that by a comprehensible mechanism, evolved by a process of natural selection.

The second difficulty lay in the apparent unity of the mind, so much emphasized by some philosophers. The solution of this difficulty I have just indicated.

But there is a third difficulty, the answer to which is not so convincing. It is the appearance among our data of so many simple qualities which can not apparently be reduced to one another. How can the qualities blue, red, yellow, bitter, sweet, hot, cold, hard, soft, A flat, B sharp, develop out of one another or out of something simpler than all? Mr. Strong's answer is that what introspection gives us is vague impressions of what in itself is highly complicated. It is a case of not seeing the trees for the wood! "Anger" or "fear" is a general impression of what, when analyzed, resolves into a complex of organic sensations. So the apparently simple sensible qualities may be not really ultimate, but complexes of—perhaps, in the end, one single kind of element, their individuality lying in their structure rather than in their substance.

If these difficulties are thus solvable, it becomes possible at last to see how consciousness could arise in a world hitherto unconscious. Of course, on any hypothesis, there would be a *history* of the world, which would show when, and under what conditions, consciousness appeared—and appears in each new animal-organism. But its appearance would be a sheer marvel, unpredictable, incomprehensible. On the hypothesis of panpsychism alone we can see how conscious-

ness naturally and inevitably arises in an organism with sense-organs and brain.

In his earlier volume, Professor Strong showed that this hypothesis alone offers a satisfactory solution for the mind-body problem. (It retains a belief in the causal efficacy of mental states, as the interactionists wish; it retains a belief in the conservation of physical energy, as the parallelists wish; it even agrees, he now sees, with the automatist's assertion that the *data of consciousness* are epiphenomena, ghostly by-products of evolution, without causal efficacy—or even an existential status.) The two volumes, in spite of the change of terminology and the altered envisagement of the epistemological problem, complement each other, and present quite the keenest and completest argument for panpsychism that has yet been offered. At least, I can record that they have done far more than anything else in print to strengthen my own conviction, now of some twenty years' standing, that the truth lies in this direction.

I have passed entirely over many interesting points, in the effort, within a very brief compass, to indicate what is most significant. The chances are that I have not expressed the argument quite as Mr. Strong would have had me express it—we have never yet, in correspondence, been able entirely to satisfy each other, or the other members of our group! I recommend the readers of the JOURNAL, therefore, to hold lightly my words and to read Mr. Strong's carefully thought out and painstakingly expressed exposition for themselves.

DURANT DRAKE.

VASSAR COLLEGE.

REVIEWS AND ABSTRACTS OF LITERATURE

Proceedings of the Aristotelian Society. New Series, Vol. XVIII. (1917-18). London: Williams & Norgate. 1918. Pp. 663.

In the midst of war English philosophy has prospered. The mere bulk of the Aristotelian Society's latest collection of papers is surprising, the more so that one paper is here only in abstract, and one entire symposium is not here at all. In quality the volume is likewise remarkable. The relative impressions left on those who were privileged to hear read and discussed the papers in this volume and in its predecessor, I do not know; I can judge only from the printed page; but certainly the improvement in quality in the present volume, as over its predecessor, seems to me more striking than the increase in bulk. The volume is a notable one.

Turning to the subject-matter of these papers, my first query is,

What has become of English "new realism"? Messrs. S. Alexander and G. E. Moore are here—in forms that astonish. But I begin to wonder whether English new realism was not, after all, only a chance conjunction of thinkers, each following his own orbit, and now tending to separate wider and wider. Mr. S. Alexander's paper, presented here in abstract and entitled "Space-Time," is to me bewildering. I gather that the ultimate elements of the world are motions, and motion involves both places and times, so that space and time are intimately conjoined. Space must have three dimensions, because time has three characters—succession, irreversibility, and betweenness. This reminds me, indeed, that I once heard a lecturer who proved the doctrine of the Trinity from the fact that matter has three forms—solid, liquid, and gas. But Mr. Alexander goes on gaily to tell us that "Time is the mind of Space," and "Space-Time is the stuff out of which all existents are made," and so I here drop the subject, as being beyond my depth, and lest I say something foolish. Mr. G. E. Moore's paper is a criticism of Bradley. It strikes a blow fit to cleave Mr. Bradley asunder—only I have a suspicion Bradley is not standing at the point where the blow descends. That quality, which appears in Moore, of measured and open-eyed consideration of doubts, and striving after absolute precision, appears here also in the articles by Mr. J. A. Smith and Miss Dorothy Wrinch, the latter a little gem of logic. But the users of this method are peculiarly prone to misrepresent the proportions of the whole in their meticulous care about the parts; and prove to surfeit what needs no proving, while the real problem remains untouched.

The absence of political philosophy is also noteworthy in this volume—and perhaps that is one reason for its superiority over its predecessor, since good political philosophy is rare. Mr. Scott's "Realism and Politics," and the opening pages of Mr. Hetherington's article, are, however, well worthy of our consideration, because of the important tendency in current political thought which is there examined. Realism is, in this instance, used in its more non-philosophical sense, to mean a preference for the existent brute fact and a depreciation of the ideal. It consists in a liking for "given" reality, as raw as possible, uncooked, untampered with. It is to be found alike among philosophers, says Scott, in Russell and in Bergson, and brings these two apparently antipathetic thinkers together. It leads Russell, in his social philosophy, to minimize the importance, and apparently even the desirability, of reason in actual human affairs, leads him to say impulses are what shape the world. It leads those syndicalists who have adopted Bergson as their philosopher—adopted him somewhat after the fashion of "the dog who

adopted a man" in the comic papers—to say in substance, "Down with your Utopias, down with your Ideals that never come true, start the social revolution and let it work itself out whithersoever it will." Such a social philosophy may put on airs as one that is mature and disillusioned. It may become such a Buddhistic disillusionment as finds expression in Mr. Russell's "A Free Man's Worship"—"Farewell, proud world, I'm going home—to the Nirvana of Mathematical Bliss." But whether it be as mature and wise as it is disillusioned, may perhaps be doubted. It is a giving up, so far as active life is concerned, of all that makes men men, a loss of faith in social purposes and ideals; and the question may well be asked, "Without a faith, not merely in reason in the abstract, but in at least some power of reason in this world of today and tomorrow, how long will the hard and arduous road of reason itself be followed; how long could we keep alive in another world a spirit so feeble and helpless and hopeless that it can not live and work in this?" Bergson has already made the sacrifice: for him the glory of the intellect is foolishness, the world of the ideal is a pale reflex of the real, and the social life of man is the chance refluence of rivulets of feelings that once upon a time diverged. And with these as our philosophical leaders of today, perhaps it is not to be wondered at that an idealism undisillusioned enough to believe in ideals is nowadays so rare.

Very closely connected with the subject just considered is an essay in characterization of Bergsonian intuition, by Mrs. Karin Costelloe Stephen. She insists, and rightly I think, that Bergson's intuition is no return to primitive consciousness. But I should prefer to put somewhat differently the conclusion to be drawn. Never having been a cow, at least so far as I can remember my previous transmigrations, I can not be sure just how it feels to be a cow. But I imagine a cow to live in a world of what Bergson would call "symbolic knowledge." Yonder green means "something to eat," and then one goes and eats, and that is all there is to it. There is no voluptuous enjoyment of greenness for its own sake. A cow world is a world of signs and symbols. Yet Bergson seems to suggest that signs and symbols are among the vices of high civilization, intellectual products of applied science, when the scientific man, in the fullness of time, set out to build bridges. But every mind uses some crude sort of signs and symbols. The really remarkable thing is that the civilized man should have any notion of setting out to build bridges at all—neither a cow nor M. Bergson would ever have thought of such a thing. The world of ideals is for Mr. Russell a world afar, for M. Bergson it is as if it were not.

What is it that M. Bergson wants, the which he finds symbolic

knowledge can not give him? It is not change and evolution. Existentially, that symbolism called language is a wonderfully fluid thing, sometimes distressingly so. And as for the meanings it conveys, only a neglect of the facts could have led to the current opinion that language is more suited to express the unchanging. Our own English tongue gives us twenty verbs to characterize action and transformation and movement, for one term that denotes the unchanging and the eternal. Language, itself an activity, is most at home in a realm of activities. But Bergson does not really hate symbolic knowledge because he thinks it gives us the permanent. Evolutionist though he calls himself, change and evolution are not what M. Bergson most truly delights in. He even speculates about a God for whom, as for Professor Royce's Absolute, the whole panorama of time should be gathered up in one eternal, world-embracing, time-inclusive vision. But what rejoices M. Bergson's soul is the quality of the world. M. Bergson hates signs and symbols because they take us away from immediate immersion in quality. Language can not give us the feel of a throb of joy or pain, the blending tints of field and sky, the toll of a distant bell. For the appreciation of these experiences, we must turn away from books and spoken words to things; and to things, not as the peasant uses them, but as the artist sees them and feels them, the artist who dwells on their peculiar *quale*, their richness of color and savor. To linger over this endlessly various body and stuff of the world, to taste, to drink deep its manifold flavors, to do that would be to live. If M. Bergson calls for change, it is because change can give us a new sensation, and a new relish, every minute, to add to our treasures of memory. And his appeal to us to wake up to these things, is in its place good. But while making this appeal to us, Bergson leaves out of his account other things that are more wonderful yet, other things that civilization should also mean for us: namely, the world of the ideal, and the world of social intercourse. To those things he seems almost as blind as the cow we considered above—the cow which lives in a world of mere sign knowledge, where all things are categorized as good to eat and not good to eat—is irresponsive and blind to the changing glories of the dawn. The world of the ideal, as we have said, and the social world also, we may add, is for M. Bergson as if they were not.

Another Bergsonian paper in this volume is Carr's Presidential Address on "Mind and Body," with the thesis, "The mind as a whole interacts with the body as a whole." Good as the paper is, I can not grant that the thesis is established. Admitting that interaction appears to occur, his way of describing it has an element of truth; but equally is it true that parts of mind do seem to interact

with parts of body. And what empirical foundation is there, after all, for the view that the mind is a whole, in the sense of being the very ideal of a tight organism, changing as a unit, every part affecting every other part? I confess to disliking the method Carr employs, as one hard to bring to empirical tests; and I believe there is much more hope from such methods of piecemeal discussion as are exemplified in C. D. Broad's recent masterly handling of the same question (*Monist*, April, 1918). The problem of psychophysical interaction leads us over into the general field of the vitalism controversy; and this latter furnished the subject for a symposium of scientific men, before the Aristotelian Society, which is reported in the present volume. The question was, "Are physical, biological, and psychological categories irreducible?" The papers presented are admirable expressions of the temperamental attitudes of different scientific men to this question. That of D'Arcy Thompson, defending a methodological mechanist position, appeals to me as capital, in its open-eyed and genial good sense.

Another symposium in this volume is a sort of metaphysical idealist love-feast, in which Messrs. Bosanquet, Seth Pringle-Pattison, Stout, and Haldane take part. But they are not without their little differences among themselves, and the three latter proceed to take Bosanquet to task for reducing human personalities to adjectives of the Absolute. The admirers of Bradley's theory of judgment, and Bradley's, and after him Bosanquet's, development of it into a metaphysic, may not be willing to agree with me, but for my part I find myself saying, "Amen," to almost every point Pringle-Pattison makes. I rather think Bradley and Bosanquet are the better idealists; but to my notion Pringle-Pattison's is the more humanly satisfying philosophy, and, so far as it is here expressed, also the truer as well; though truth and satisfyingness, I fear, may not prove ultimately synonymous.

Theology, at least as it concerns the relation of the concept of an Absolute to the concept of a God, plays a very large rôle in the present volume. It is not only raised in the idealist symposium, but also two other of the ablest papers in the volume grapple with it directly. In one of these, Mr. F. C. S. Schiller has a "real Bishop" to argue with, on the question of "Omnipotence," and fairly outdoes himself in smashing the Absolute. Even better, however, is Mr. A. E. Taylor's exposition of Proclus, wherein he attributes to Proclus so many extraordinary words of wisdom about some of the greatest problems of philosophy, that Proclus would have to be placed several grades higher than usual in the scale of philosophers, did one not suspect that perhaps it is Taylor who deserves elevation instead.

Another paper, less brilliant than these, Mr. Albert A. Cock's discussion of "The Ontological Argument for the Existence of God," is the one, however, which I should like to take some space here to scrutinize. The paper is, I believe, successful in its rejoinders to most of the current criticisms of the ontological proof. And yet, I am more convinced than ever of the invalidity of that proof. The author establishes, I think, that the proof does not amount to saying, "The sum-total of existence exists." If it proves anything, it proves there exists, in the fullest sense of the term "exists," a God who is perfect in goodness. A good God that really exists is better than one that does not, therefore a perfectly good God must be one that exists. And he establishes, also, that if it proves as much as this, it can, furthermore, prove that a personal Devil exists (his argument to show the Devil would be impersonal, seems to me mistaken). An existent personal Devil would be far worse than an imaginary or impersonal Devil. And I think he meets squarely the Kantian argument that existence is not an ordinary predicate; and maintains that, granting this contention, the proof still holds. Verily, this is a startling situation, for we have been trusting in Kant to defend us.

But I think the author is right, and for the following reasons, wherein I depart from the author's mode of presentation. A good God would have to be existent. The reason why is simply this, that a non-existent somewhat is nothing, absolutely nothing; it is nonsense to talk of its being good or bad, or having any other quality such as existent things may have. I am quite aware that our various value-theorists, approaching value from the psychological side, have convinced themselves pretty generally that we can value a thing and even explicitly judge it to be valuable, without judging that it exists. But they seem a little too much inclined to take for granted that, because in the psychological realm of judgments there can be supposals, and assumptions, and judgments about the possible, therefore there can, metaphysically, be things that exist only in possibility, or in idea, or in essence, being the same in quality as something that elsewhere exists fully or could so exist, but possessed, in the case here in question, of some amphibious half-being and half-non-being. This seems to me false, if not absurd, metaphysics; and furthermore, even if true, it would not offer genuine help in the present problem. There are those, I know, who maintain that in the worship of a God, what we really worship is the bare ideal of goodness. They may go on to say that adding existence and power to this, would only be to degrade it. At least they agree that you can not make the idea of goodness better by annexing to it some sort of existence or embodiment. If these theses were correct, I do not

see why we should ever be called upon to do a good act, if the good act which is only an "idea" were not made in some very definite sense a better one by being done. Not only the idealist, but also the hypocrite and the knowing evil-doer may rejoice in the possession of the mere "idea of a good act," and not always to their own betterment. "But it is not your thought of good," it will be said, "but goodness, the essence, the concept—that is what is not made better by adding existence." This I grant, but I think the reason is very simple: goodness *per se* is neither good nor bad, any more than the concept of life is alive; the things that are properly denominated good are people, and moral actions, and the like. These lovers of the abstract good are so fearful of confounding goodness with mere existence or brute power, that they are apprehensive even to have them conjoined. It seems to me, on the contrary, that a God in whom goodness was associated with power would necessarily be a better sort of a God than one who had only goodness. And as for existence, I should suppose an existent and good God would be better than one that was non-existent by the entire amount of his goodness, for a "non-existent entity" is, ontologically, nothing, and his goodness is nil. And it is a mere plain fact, that to those who deeply value and worship a God, his existence does matter a great deal. They may not judge him actual every time they judge him precious to them or good. One judges only what is to the judger at the moment something which is in question; a judgment is an answer to a challenge. We never really do, however, call things good which we think do not exist. There is, it is true, a sort of play-mood wherein we do put aside existence questions deliberately, but that is a very sophisticated and really complex affair. Nothing, however, that I have just been saying should be interpreted as a denial that we can hypothetically discuss the goodness of the non-existent. Such discussions are of the greatest importance. But what we mean, when we assess the value of the possible or the ideal is always this: "If my ideal existed, then it would have this or this grade of goodness." Thus our argument has outflanked the Kantian position. No question need be raised as to whether existence is another sort of a predicate from goodness. It is indeed another sort. But we have established that for something to be good presupposes its existing, which is what the ontological proof set out to demonstrate.

However, there is something further to be considered. We have established that if something is perfectly good—truly, we have gone further and established that if it is good at all, then that thing is existent. But we have not yet gotten it out of the *if-then* form. We have not established that anything really is good. Our author, following his own line of discussion, has only seemingly done so;

and the reason is, that he has committed the fallacy into which Meinong fell with his "Golden Mountain." In substance, Meinong argued this way: "It is only in essence or in possibility that a golden mountain exists. It does not exist in fact, certainly not in space and time. Yes, but how then about 'The Golden Mountain that really is in space and time'? Does not that particular golden mountain have to be existent and to have a place and a date? Would it not involve a contradiction to deny to it existence?" Meinong remains perplexed. The answer to the puzzle seems to me to have been given by Mr. Bertrand Russell, and substantially the same answer is repeated in this volume by Mr. G. E. Moore, in the Bradley article mentioned above. A golden mountain does not exist even in idea, if by "idea" you have reference to a genuine meaning, and not a mental image. If it did, then it would have to exist in fact, if it were the idea of a golden mountain in actual space and time. There is here present, as subject-matter thought about, only the notion of "a single something," and the concepts of "being made of gold" and "being a mountain." But these coalesce to form no unity, such as you could point out as "The Golden Mountain," either in essence, or in idea, or in an assumed "world of possibilities." So you can perfectly well say, "The Golden Mountain is non-existent," or, "Round-squares are unreal," or, "Unicorns do not exist." You can do this without meaning that they have a new sort of being called unreal being, or non-existent reality. You do not make these things existent even in idea; no, not even only setting them up long enough to knock them down again. What you mean is simply this: "No thing is made of gold and is a mountain," "No thing both is round and is square." I do not have to postulate that round-squares exist in idea, in order that I may deny they exist in any sense, and thus contradict myself. And likewise with the case which led us to the present inquiry. I do not have to suppose that there is a "God perfect in goodness" existing in idea, in order that I may deny he exists in fact; for if I admit he is real in any sense, I admit that he is so in the fullest sense and in fact. There is no contradiction, therefore, in saying, "A God perfect in goodness does not exist," for what I really say is, "There is no being that is perfectly good." Now the ontological proof is an argument from necessity. If the proof is valid, the last proposition we have just laid down must be self-contradictory. But it is not. Hence the proof can not be valid.

I am inclined to think that the proposition, "Nothing is perfectly good," is not merely lacking in self-contradictoriness, but is also true. There may, for all I know, actually be a God who is exceedingly good, good beyond all mortal attainment of goodness. But

"perfect goodness" is another matter. As Mr. Schiller well says, if you raise power, or goodness, or what not, to infinity, you may simply destroy it. That is what I think happens here. "The Good," or "Perfect Godness," seems mere words to me. Some things are better than others, as some people are fatter than others. But why should there have to be, therefore, a person who is the *ne plus ultra* of superlative fatness, who is "perfect in fatness"? Or why should there be something called "The Fat"? Doubtless we have need of a criterion of goodness. But I do not see why that criterion has to be either "The Good," or "a Being that is perfect in goodness," any more than the tape-measure by which we might measure fatness would have itself to be absolutely fat. I would, therefore, deny that we can so much as have an intelligible idea of what it would mean for something to be perfectly good. And that granted, even the very first premise of the ontological proof is overthrown.

But my discussion will be defeating its own purpose, if I continue longer, and prevent such readers as I may have had from turning at once to the rich variety of those much more admirable discussions, which the volume we have been passing in review presents, in such unusual measure, for our enjoyment.

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JOURNALS AND NEW BOOKS

PSYCHOLOGICAL REVIEW: March, 1919. *Report of the Committee of the National Research Council* (pp. 83-149): ROBERT M. YERKES.—The organization of the Psychology Committee, its service, reports of the various sub-committees are given in detail. *Chromatic Thresholds of Sensation from Center to Periphery of the Retina and their Bearing on Color Theory, Part II.* (pp. 150-163): C. E. FERREE and GERTRUDE RAND.—The claim has been made by followers of the Hering theory that the sensitivity of the retina to the pairs of colors falls off in a constant ratio from the center of the periphery of the retina. There is no basis of fact for a claim that a constant ratio of sensitivity to the pairs of colors red and green, and blue and yellow obtains in all parts of the retina.

Flournoy, Theodore. *Metaphysique et Psychologie.* (Deuxieme edition) Geneve: Librairie Kundig. Paris: Librairie Fischbacher. Pp. 195.

W. E. A. Education Year Book. London: Workers' Education Association. Boston: Ginn & Co. 1918. Pp. 507.

NOTES AND NEWS

AN educational departure that should be of much interest and significance to philosophers is being instituted in the form of a new required course for Freshmen in Columbia College, beginning next fall. The course, to be given five hours a week throughout the Freshmen year, is entitled *Introduction to Contemporary Civilization*, and is designed to be a survey and interpretation of the chief features, intellectual, social and economic, of our own civilization, and a comparison and contrast with the leading elements of the civilization of earlier periods. It is to conclude with a somewhat extensive consideration of the general and insistent problems confronting contemporary society in the light of the background developed in the earlier part of the course.

This course is to be given in a number of sections, which are to be taught consecutively through a whole semester by members of the departments of philosophy, history, economics and politics, replacing required courses in the first two departments named. The material has been fused on the basis of the problems treated rather than on any traditional departmental lines. It is hoped by thus presenting an objective and scientifically motivated inquiry into the character, origins and possibilities of contemporary civilization, the student will be undergoing a genuinely educative process, that he will begin to have a sense of the context of the particular subject matters of inquiry in the world in which he is living, and that in consequence of this orientation he will be enabled to choose his electives and form his intellectual interests and judgments in a broad and genuinely philosophical fashion.

The material in the course more specifically taken from the field of philosophical inquiry, is the section of the course dealing with the *World of Human Nature*, a discussion of human traits and their social significance; and a discussion of the outstanding and controlling ideas of the modern period, and their development from Francis Bacon through the rise of the doctrine of evolution, and the diffusion of the spirit and methods of science.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

INSTRUMENTAL TRANSFORMISM AND THE UNREALITIES OF REALISM

THE instrumentalists in philosophy are reaping a rich harvest of criticism and contempt because of the wild oats they have sown. But as true votaries of a genuine empiricism they do not deny the excesses of their youth. Not by way of excusing their excesses, but by way of explaining them, do the pragmatists describe the original state of their rebellion from the traditions of philosophy. It was because pragmatism arose as a criticism of the closed system of absolute idealism that James rejected logic, fairly, squarely and irrevocably.¹ And because the pragmatist could not tolerate the implication that the value of thought was to be judged by an external correspondence of ideas to "Reality," he laid himself open to the charge that truth is what gives satisfaction.² In spite of the fact that besides the criterion of the satisfaction of practical needs, James also insisted upon the agreement of thought with actual objects, and in spite of the fact that the instrumentalist disclaims all responsibility for the former criterion,³ it is precisely that one which is still held up to instrumentalism as its cardinal error. We observe then that not because instrumentalism is really responsible for the sins imputed to it, is it willing to trace its growth from a precarious position, but because it hopes thereby to contribute to the clarification of thought.

The outstanding criticisms of the instrumental attitude made by both the idealists and new realists may be summed up in two coordinate propositions. The first asserts that the instrumentalist has no logic, because he is interested merely in the satisfaction of practical needs. The second point in the indictment is that instrumentalism leaves no place for solidity; its world is entirely elusive and arbitrary. Since the issue seems so definite, this paper proposes to review some of the salient features of instrumental logic by way of clearing up some points of agreement and disagreement between the instru-

¹ *A Pluralistic Universe*, Lecture V., p. 212.

² James: *Pragmatism*. Lectures II. and VI.; cf. Dewey, *Essays in Experimental Logic*, pp. 320 ff.

³ Dewey: *op. cit.*, p. 331.

mentalist and his critics. The way to this task is indicated by the fact that for the instrumentalist as for the realist, logic is the essence of philosophy.

Instrumentalism considers its most positive achievement to be the capacity to bring order and system into a world of shifting occurrences. It is the necessity to relate things which makes a logic necessary at all, and in the fact that instrumental logic is able to do this lies its fundamental significance. Instrumental logic is not a self-subsisting activity indulged in for its own sake; rather, it is purposive and makes for some factual reconstruction indicated by the emergence of some actual problem. Its function is to carry us over from one event to another, making our world meaningful and our actions with respect to it possible and worth while. The essence of logic is to give meaning to objects and events by way of evaluating them, and this means to connect them with our previous and present experience. This kind of logic gives thought its wings, not the logic of absolute relations.⁵ And to borrow an excellent description from Russell, instrumental logic "brings with it—as a new and powerful method of investigation always does—a sense of power and a hope of progress more reliable and better grounded than any that rests on hasty and fallacious generalizations as to the nature of the universe at large."⁶

The process of giving meaning to objects and their relations is the work of the categorization function in the course of scientific analysis and synthetic generalization. These last-mentioned processes refer to the way in which we start with a specific happening, say the explosion of a chemical substance which for the present confuses our world of reality, and end with a solution of our defined problem and the consequent enlargement of reality. It is at this point that the instrumentalist unblushingly asserts that he constantly creates⁷ his world anew.⁸ And this is because for him the world is a denotative term for men, metals, electricity, steam, and all other things, forces and processes with which he actually deals. It is not absurd to expect the public to believe that man can transform his world in order to further his activity, since everybody can see it done. To deny the possibility of this is to deny the function and

⁴ Cf. Russell: *Scientific Method in Philosophy*, pp. 33, 239 and elsewhere.

⁵ Cf. Russell: *op. cit.*, p. 59.

⁶ *Ibid.*, p. 30. Cf. Dewey's criticism of Russell's problem of the "world," *Essays in Experimental Logic*, Chap. XI.

⁷ Note that this creation is always a transformation of crude facts into every-day knowledge, and scientific facts and laws. The problem of the universe at large as formulated by the idealist and realist is never involved.

⁸ Cf. Caldwell: *Pragmatism and Idealism*, p. 135.

progress of science and knowledge. We may place our finger upon the nerve of the absolutist's criticism of instrumentalism by indicating that the critic never is talking about the instrumentalist's world. The pragmatic attitude is to disclaim all commerce with, and knowledge of the eternal worlds of the idealist and the realist, and the instrumentalist is entirely willing to forego all powers with respect to them.⁹

The question arises as to whether the instrumentalist's insistence that he is constantly retransforming his world means that he makes it an arbitrary construction. Such a question is impossible when we remember that the values or determinations which the scientist gives to the objects with which he deals, are tools forged in the course of actual contact with things, and are designed to increase the possibilities of such contacts. The categories of instrumentalism enlarge and further experience by discovery of larger implications of facts. It is not at all to the point to argue that, after all, nothing is created and that we must look upon the new objects of science as having always existed. The instrumentalist insists that the world was very considerably remade when Faraday discovered that "static electric charges and forces were dependent upon the characteristics of the material substance in which electrified bodies were immersed," and still further remade when Hertz showed experimentally that electro-magnetic energy passed through vacuous space, and that this radiant energy was undoubtedly of the same type as light and heat.¹⁰ We must be sure of our ground at this point, and insist that it is precisely because the instrumentalist is thinking in terms of human actions and the possibility of increasing those actions and capacities for action, that his recategorization of the world at the point of specific problems means a transformation by creative discovery of that world.¹¹

Besides the criticism with which we have just dealt, namely the conception that the work of science is not a transformation of the "real" world, there is another type of criticism which claims to be more scientific, and takes the form that while these transformations are possible and do occur, they do so because they answer to a set of absolute laws. These thinkers start from scientific premises; that is, the new realists mean to discuss logic as operating in a domain of scientific fact, although they soon get far away from that position. To insist that our knowledge is such as it is, because there are absolute laws and relations, if not logical atoms, eternally existing in the

⁹ Cf. Russell: *op. cit.*, p. 17.

¹⁰ More: *The Limitations of Science*, p. 160.

¹¹ Cf. Mead: *Creative Intelligence*, p. 225.

world, is entirely a non-scientific attitude, since the work of science is precisely to determine just what laws, relations and things exist. The realist suggests that he really means that if we hold up as an ideal the existence of such absolute laws we won't blame nature for our mistakes but only ourselves.¹² In this statement lies the fallacy of thinking that the work of evaluating objects and relations is a trivial occupation, and that we need only have a worthless promise to keep us at our task. This viewpoint entirely overlooks the fact that our task of evaluation is a process of making our difficult way with unrelenting facts, which are constantly presenting us with newer and more complex problems. The realist forgets that it is the instrumentalist who is developing a logic of things, and moreover a logic of genuine things.¹³ For this reason the instrumentalist has no problem as to why he succeeds;¹⁴ he succeeds because he sets himself no false problems, but works zealously at those nature sets him, and every one interested in nature knows that such an occupation leaves no time to pursue supernatural mysteries. And by the same token the logic of absolute relations must always be seeking and never finding, because it starts with the presupposition that real things are metaphysical.¹⁵ It is not a perversion of the realistic logic to make it end with logical atoms as Costello asserts;¹⁶ that is the way it must end, unless one does what Costello would do, namely, forget the atoms and leave their systems of relations.¹⁷ And when Costello does this the question arises as to whether he accomplishes more than he asserts the idealistic logicians do, namely revive the Greek concept of perfection. The idealist might reply that Costello does not do so much, namely that his system is just as arbitrary but not so perfect. Costello maintains his pious hope concerning the final outcome of the "truly relational" logic because he thinks it is not what he calls one of the old logics with a new face.¹⁸

The new realists condemn all those who can not believe that there are reals in experience, that there are in science eternal and immutable laws. "The laws of space, number and of matter and energy have not changed from the times of Euclid and Pythagoras and Archimedes; the laws of gasoline engines were just the same in the days of the ancient Athenians as now. We know them and they did

¹² Cf. Costello: *Studies in the History of Ideas*, Columbia University, 1918, p. 257.

¹³ Cf. Costello: *ibid.*, p. 267.

¹⁴ *Ibid.*

¹⁵ *Ibid.*, p. 257.

¹⁶ *Ibid.*, p. 261.

¹⁷ *Ibid.*, p. 262.

¹⁸ It has become a favorite form of self-delusion with the new realists to think that they have little or nothing in common with Aristotle.

not."¹⁹ And Montague might have added that these laws were just the same thousands and thousands of centuries before Athens. In attempting to find some meaning in this statement we might begin by asking whether the new realist means to say that he believes uncritically there must be changeless laws of space and number and so on throughout the whole range of science. The question is suggested by the fact that Montague mentions Euclid in connection with the laws of space, and of course Montague would hardly care to say that the Euclidean law is an immutable law of space.²⁰ He probably would be just as unwilling to say that Lobatchewsky's law is an absolute law of space, and if so the result is that Montague stands for absolute laws which merely "are," but which nobody knows and which have nothing to do with science. But no, Montague says we know these absolute laws, while only the Athenians did not. There are two questions raised here; the first is why doesn't Montague state what these absolute laws are; LeRoy, Mach, Duhem, Poincaré and others were forced to confess their inability to find them. The second question is what right has Montague to declare that in the two thousand years ahead of us there won't be such progress made in the discovery of absolute laws as in the two thousand years past.

But let us not hold Montague too rigidly to his statement. He might with excellent ground argue against the extreme contingentists who seem to deny any stability in science. Montague might then mean that we do not know any absolute laws but that unless there were such laws, events would not occur as they do. In other words Montague might mean that there must be laws, in the sense that the idealist thinks there must be a world, behind phenomena. Professor Dewey has convincingly discussed this situation.²¹ He refers to the case of a man who has been rescued from drowning under peculiarly precarious circumstances. A bystander remarks that now he is a saved man. "Yes," replies someone, "but he was a saved man all the time, and the process of rescuing, while it gives evidence of the fact, does not constitute it." Dewey is discussing the problem of the truth of ideas, but the illustration has point here. The realist seems to believe that whatever happens, happens because of immutable laws, and not that because things happen thus and thus we can frame by induction various laws; and thus he differs from the instrumentalist who considers that were it not for pulling the man out of the water, there would have been no saved man. The ultimate laws of

¹⁹ Montague: *Studies in the History of Ideas*, p. 236.

²⁰ Note that he has just said the Athenians did not know these absolute laws, but I mean to suggest that there might be good reasons for not taking the Euclidean law as the absolute one.

²¹ *Influence of Darwin on Philosophy and other Essays*, p. 143.

science as the instrumentalist reinterprets the new realistic standpoint, are nothing more than evaluations of phenomena, their behavior and relations, which are formulated in handling these phenomena in actual scientific pursuits; and from the pragmatic standpoint these ultimate laws are nothing less than the means by which the world of things becomes intelligible to us and amenable to our reconstructions of it.

The instrumentalist is entirely in sympathy with the new realist in asserting the existence of definite laws of science. The former is keenly aware of the brute stubbornness of facts, and the lack of arbitrariness in things, but this does not drive him to believe in unknown and unknowable laws, which always imply a metaphysics which can mean nothing and accomplish nothing. The instrumentalist, working always with concrete problems, looks upon the laws of science as broad and general evaluations derived from a long experience with actual things. Since the entire procedure of knowledge is to understand and control phenomena, it is obvious that man can not create the crude facts with which he is dealing. It is these crude facts which are given. All the crude facts of disease, the organization and decomposition of matter, the changes in geological structure and on through all the myriads of happenings among which the scientist works, are not made by him. They do not depend upon him for their crude existence or their crude laws. Even if we overlook the work of Wolff, Mirbel, Von Baer and others, we must say that the crude facts of cellular biology were given to and not made by Schwann and Schleiden; but is it possible to overlook the difference between biological reality before and after their work? Similarly, Newton did not create the crude facts of gravitation, nor Darwin those of transformation of species, but if these men are taken as examples of scientists their accomplishment in transforming the world is unequivocal. We are immediately brought face to face with the problem of the relation of science to its crude facts. In a general way this is the problem of the relation of things known to things. All science and philosophy deal with observable things and relations. Perhaps one of the first facts about things is that we observe them differently. Our contact with things depends upon our previous observations and these differ with each person. In order to generalize them for our scientific purposes we must adopt standards of reference. These latter become laws of things known and are independent of the individuals whose observations go to make these laws.

Our laws of mechanics whose sole validity and value lie in their character as genuine evaluations of our crude every-day facts, do not of course precisely represent any specific event. It is because these

laws are made for the guidance and enlargement of action that they are made universal, in the sense that they answer to all, though not precisely to any specific fact. Thus, to borrow some examples from Aliotta, "according to the laws of pure mechanics, a pendulum should continue its isochronous oscillations to all eternity, whereas it stops after a certain time; a projectile thrown in a straight line should pursue the same direction with a uniform motion *ad infinitum*, whereas in reality we see it fall after having described a parabola.'²² These laws are rigid and independent in so far as our evaluations of things are rigidly determined with reference to the actual things from which they are abstracts and interpretations. This condition accounts for the difference in absoluteness of scientific laws. The fact is that all laws, being after all laws of things observed, are subject to modification, and revision.²³ These modifications are the natural consequences of meeting with new phenomena in the ordinary course of human life. The conflicts of science are occasioned by the discovery of an exception to a law which was formulated on the basis of certain observed facts. In such cases the laws are expanded to include the new phenomena. It is because the new realist fails to appreciate the true nature of a scientific law that he assumes that there are conflicts between immutable laws and perceptual facts, or between reason and sense. To quote Montague as an example, we find that what he considers a conflict between a law and a perceptual fact, is the type of puzzle which Zeno first formulated.²⁴

The instrumentalist is far from denying the independence of reality, but when this independence signifies anything he considers it a limiting conception, in the same sense that the law of conservation of matter or energy is a limiting conception. It is a formulation of related events which makes for freedom and variety of action and knowledge. There is nothing arbitrary or artificial about these laws, since the scientist is dealing with actual things, well named by Poincaré crude facts; these crude facts stimulate the scientist to evaluate them as scientific facts, and to formulate them into scientific laws. Of course Poincaré is seriously at fault in thinking that all the scientist does is to create the language in which he enunciates facts.²⁵ The evaluations of the scientist consist of a working over of the specific crude facts by comparison and testing into a scientific fact,

²² *The Idealistic Reaction against Science*, p. 338.

²³ It is because Russell considers the laws of science as entirely without relation to actual empirical happenings, that he thinks these laws absolute. Cf. *Principles of Mathematics*, p. 493.

²⁴ Cf. *Studies in the History of Ideas*, pp. 228 ff.

²⁵ *The Foundations of Science*, p. 332.

which makes for an enlargement of the domain of science into which the crude fact forced its entry. The crude facts are not lost, but integrated, and this is the reason that the scientific manipulation transforms genuine reality. The complete world of science, if it is genuine and critical, would constitute the entire world of things and relations. The facts of science must be looked upon as the crude facts of naïve experience standardized, criticized, and interpreted.

The range of categories for the instrumentalist would therefore cover all phases of phenomena, whether the crude facts of our everyday life or the most abstract determinations of science and philosophy. The point is that every category represents in its final analysis some kind of contact of a human being with objects or events. In the lowest stages of this interpretation procedure the categories merely stand for the particular contact, while in science and philosophy the categories represent the most intimate significance of these contacts. In the latter cases it is not important merely to know that the contacts have occurred, but to understand them and to increase their possibilities.

The instrumentalist looks upon the categories time, space, motion, causality and force as values abstracted from actual empirical phenomena for the purpose of controlling them. Causality is a category which aids us in the work of organizing successive facts in a world of rapidly shifting experiences. It enables us to relate in specific ways older and newer experiences, thus giving a serviceable continuity to the world of changing things. The category of substance, for example, is a scientific evaluation designed to reach back to certain specific qualities or conditions of things. The instrumental character of the categories lies in the fact that, although not themselves concrete things, they enable us to deal with those things. Depending upon the functional value of the categories for specific scientific purposes, substance, for example, may be further characterized as matter, energy or electricity, and as Brown²⁶ has pointed out it happens to be most useful in science to-day to make no separation between the categories of matter and energy.

We must point out again that in all cases in which the categories are of actual service in the control of certain phenomena, they are derived from those phenomena. Thus, Euclidean space is the space of science because it is built up through actual contact with things, and consequently is the most serviceable in the description and control of such things. When data will accumulate which can not be handled by Euclidean space, then a multidimensional space will have to be employed. It is only in so far as mathematical physics is not

²⁶ This JOURNAL, XIV., p. 64.

employed with the immediate control of phenomena that it may posit a multidimensional space, and reduce matter or substance to quantity. The main point here is that the abstract concepts of science are developed in an attempt to control the fallings and breakings, the movings and restings of actual things, now, a while ago, and in the hours to come. Since these objects and events are real, the evaluations which are continuations and elaborations of them must also be real. The instrumentalists are the last persons on earth to be called nihilists or nominalists, since the former start and end with the only sort of reality there is. The instrumentalists have thus in common with the fictionist²⁷ and the contingentist²⁸ the idea that science and its categories are instruments in the service of man. But unlike the fictionist the instrumentalist derives his categories from actual events and tests them by those events; consequently these categories are realities, and this characteristic applies to all evaluations, whether of the physical, biological or social sciences. The instrumentalist differs from the contingentist in that the categories for the former are merely realities for action. The instrumentalist recognizes no other reality than the world of naïve phenomena, whether described as the durational immediacy of the intuitionist, known through philosophical categories, or as an extremely mediate reality of the Neo-Kantians, which is never known at all. And so while the instrumentalist is a realist, he differs widely from the new or presentative realists, since we have already observed that their reality comes to be a series of unknown entities far removed from actual things.

Our study thus far has indicated that the categories or determinations of experience must represent a graded series which reach down below the level of cognition. The categories in our perceptual experiences are not knowledge elements in any genuine sense. Our primary categories are reactions or modes of response to objects. What things mean is merely the way we react to them. During the course of our experience with these things we find that with the capacity to control our responses there is correlated the process of lifting meanings out of the field of actual happening; that is, things are pointed out, intended and known. The primary function of scientific concepts or categories is to give us a means of control over our experiences. It is extremely essential therefore that these categories should have the broadest identity with and reference to original happenings.

The question arises as to what the specific function of the philosophical categories are, and it is the lack of explicit statement con-

²⁷ Vaihinger.

²⁸ LeRoy, Mach, Bergson, *etc.*

cerning them which is one of the instrumentalist's most flagrant sins of omission.²⁹ The categories of philosophy are of course continuous with the categories of science and of every-day life. It is not at all a sign of the bankruptcy of philosophy³⁰ that it uses the same categories as science; it is rather a sign of progress and expansion, an indication that philosophy is accomplishing something, and signifying something. The idealist who seeks entirely other categories for philosophy, seeks, though he hesitates to say so, something that will carry him out of the actual world into a realm beyond. As a result the idealist criticizes the instrumentalist for thinking in terms of organism and environment, because the former mistakenly thinks that to remain in this concrete world of ours excludes him from a genuine spiritual life. It seems clear that the spiritual life the idealist wants has nothing to do with life, and that accounts for his inability to think of himself as a biological organism. What the idealist means when he opposes the instrumental movement is that it does not "express reality in its completeness."³¹ And when he speaks of philosophical adventure³² and freedom of reason³³ he is speaking of a "yearning soul which first expresses itself in loyalty to society and in good citizenship, but which can find no final satisfaction until it completes itself in the knowledge and thought of God, in union with whom alone the individual comes to be that which he really is."³⁴

The instrumentalist must look upon philosophy as theoretical science; its material is precisely that of science, but its attitude is broader. Science has two closely related phases of activity that are still distinct. In the first place it is interested in the solution of immediate practical problems. In conformity with this interest it evaluates things precisely for the purposes at hand, without regard to their larger implications. The theoretical phase of science which makes for a larger control and understanding of phenomena is more critical in its determinations. Thus in order to solve some specific bio-chemical problem, for example, we make an absolutely mechanical determination of phenomena, while when we are interested in enlarging the scope of our researches we may very well question whether the phenomena of biology are entirely mechanical. For

²⁹ Here again there has not been an entire neglect of the matter, but because instrumentalism has faced the necessity of overcoming the inertia of absolutism, it has exposed itself to the charge of being anti-philosophical. Cf. Dewey: *The Subject Matter of Metaphysical Inquiry*, this JOURNAL, XII., p. 337.

³⁰ Howard, this JOURNAL, XV., p. 154.

³¹ Bosanquet: *Realism and Metaphysics*, *Philos. Rev.*, XXVI., p. 8, quoted by Howard.

³² Howard: *loc. cit.*, p. 156.

³³ *Ibid.*, p. 157.

³⁴ Bosanquet: *The Principles of Individuality and Value*, p. 403.

some purposes we may think that things are absolutely static and without possibility of variation, while for others we may not make any such assumption. In a general way we think of the theoretical phases of science as checks on the practical pursuits; so the possibilities of changing our technique of investigation are not precluded by a prejudice of the case. The theoretical or philosophical determinations then, are in a way relatively ultimate, complete and final; that is, they remain unchanged, pending the discovery of new facts.³⁵

This domain of theoretical science is a genuine speculative realm, in which the motive of practical accomplishment plays only such a part as to allow us to say that the phenomena involved are continuous with those of the specific sciences. In following out the function of the categories as the instrumentalist uses them, we find that the philosophical categories break across the boundaries of the specific sciences such as physical, biological and psychological, and determine phenomena on the basis of the factual contribution of all of these. Within the domain of the special sciences and various phases of practical life the use of categories peculiar to each domain must be rigidly adhered to. We can not fail to recognize the striking incongruity of using teleological categories as evaluations in the field of mechanics.

An important implication throughout the discussion of the instrumentalist's doctrine of categories is the significant place which consistency and correspondence play in the use of them. In the first place because the pragmatic attitude is an evaluation of actual things the evaluation must correspond to the concrete things evaluated. This is not of course a correspondence between mutually exclusive elements, but in the practical manipulation of science the categories stand over against actual things.³⁶ In the second place, since the values are primarily instruments for the enlargement of our contacts with the world of things, there must be a consistency in our attitudes. If our interest is merely to control a specific phenomenon, it is only necessary that the particular categories referring to it must hold together. We may thus have an indefinite number of categorization systems. But if our interest is theoretical, and we wish, for example, to test our evaluation of the substance of things, as energy or electricity, then there must not be within this domain any contradictions. On the one hand, since we are not interested in any absolute world presupposed prior to experience,³⁷ we may very well

³⁵ The practical solutions of science as compared with the theoretical are fleeting and tentative.

³⁶ We have indicated above that a scientific category does not refer to any particular thing.

³⁷ What Dewey calls creational and eschatological interests, this JOURNAL, XII., p. 354.

consider our evaluation systems as mutually incompatible. And because we may not in all our activities of evaluation be interested in specific problems, but in the continuity and significance of our general knowledge of things we must have our categories carry over from one realm of science to another, and thus cohere in a functional totality.

It is an entire misrepresentation to say the instrumentalist abhors systems.³⁸ What he does abhor are absolute systems which have no relevancy or significance and nothing to recommend them but their systematization. The realist clearly criticizes the instrumentalist for not building systems, merely for the sake of building³⁹ them, in spite of the latter's constant reiteration that his systems must serve some function. The instrumentalist is constantly campaigning; his whole method is that of overcoming the autocracy and arrogance of the brute facts of experience, but he can never merely campaign, just for the sake of campaigning. He has discovered by hard experience that to approach scientific problems with empty abstractions and ready-made systems is like equipping an army to-day with blunderbusses and brass cannon. Each problem is unique and the instruments to solve it must arise out of the situation at hand. To believe otherwise is to believe in a set of eternal and unchangeable conditions which must forever lie beyond the pale of verifiable science.

To summarize, the instrumental movement represents one of the specific types of reaction to absolutism, which is slowly but persistently being forced out of philosophy. Among other reactions to absolutism, that known as new realism is characterized by the fact that it merely shifts the ground of the absolutism, and instead of conceiving reality as being behind experience, puts it into experience as absolute entities, relations or immutable laws. As over against this presentative realistic position, instrumentalism denies all absolutes, whether essences, relations or laws. It considers the work of science and philosophy not to be that of finding reals in experience, but assumes that our actual world of concrete things and events is real, and that there is nothing beyond or behind them. Thus the facts and laws derived from this domain of reality are reals, but still subject to the transforming influence of the creative evaluation of science. To assert the existence of any absolute thing or relation is to fly in the face of all scientific facts. This last proposition includes all absolutes, and so the instrumentalist refutes the idea of Mach and his disciples, that reality is reducible to mental states,⁴⁰ by pointing

³⁸ Cf. Costello: this JOURNAL, XV., pp. 60 ff.

³⁹ *Ibid.*, p. 68.

⁴⁰ *Science of Mechanics*, 1917, p. 482. Analysis of the Sensations, Introductory remarks, and elsewhere.

out that these sensations are themselves abstractions from things and can not therefore be their underlying reality. Sensations are categories referring to certain specific qualities of things during the course of their interpretation. It is clear that the instrumentalist is a frank and consistent, naïve or common sense realist, and takes as his ultimates the crude facts of every-day experience. He takes to be real only that which can be observed, tested, and made to yield conviction by proving genuine in the course of experimentation.

And thus because the instrumentalist is not an idealistic creator nor possessed of a transcendental reason capable of grasping absolute reality in the new realistic manner, he does not set over against his philosophical method an impossible task. And finally, since instrumental logic is the method of science it is submitted to thinkers upon its merits. What is claimed for it is that it will increase man's capacity to understand and control phenomena, that is, real things. In support of this claim we may point out that the critics of instrumentalism have never really disputed it, but have attacked the pragmatic attitude because it can not yield absolute reality. Our study has indicated that absolute reality is an unsound fabrication. Is it fair then, to condemn the instrumental method because it can not find phantoms that it does not seek?

J. R. KANTOR:

UNIVERSITY OF CHICAGO.

SOCIETIES

THE NINETEENTH ANNUAL MEETING OF THE WESTERN PHILOSOPHICAL ASSOCIATION

THE Western Philosophical Association held its nineteenth annual meeting at the State University of Iowa, Iowa City, on April 18 and 19, 1919. The programme covered a fairly wide range of topics, though the major emphases fell on political philosophy and on the present obligations and opportunities of philosophy in the fields of educational and, more generally, of social reconstruction. While there were few instances of what might properly be called a clash of opinion, there were many delightful differences as to the manner in which subjects were approached and viewed. This was strikingly true of the symposium on "The Function of Philosophy in Social Reconstruction." The subject was in this instance illumined from the standpoints of the history of philosophy and of culture, of ethical reflection, of psychological description and analysis, and of metaphysics. In all, twelve institutions were repre-

sented by the readers of papers, and as many more institutions had representatives who participated actively in making the discussions and the meeting as a whole a distinct success.

The presidential address was this year given by Professor Henry W. Wright, on the topic, "The Social Purpose of Education." President Wright set forth most cogently the limitations of those theories of education which have been dominated by biological concepts. This prepared the way for the thesis that the primary function of education consists in developing capacities and experiences which will enable individuals to share, and also to promote, the social life. This social life, Professor Wright convincingly maintained, can and should find expression in the field of technical achievement no less than in the realm of art and in that of science and knowledge. Education must essay the task of bringing to light and of developing the genuinely social values and possibilities that lurk in the economic activities, the artistic endeavors, and the cognitive interests of man.

To the thoroughly informal and cordial hospitality of the Department of Philosophy of the State University of Iowa, the Association felt itself greatly indebted. For Friday noon, a luncheon was arranged at the Hotel Jefferson. Friday evening, the members and visiting friends were the guests of the University of Iowa at a dinner in the Triangle Club. There was a brief dinner programme, which was placed in the charge of Professor Patrick, who called for brief addresses, in turn, upon Professors Tufts, Schaub and Bode. On Saturday noon, Dean and Mrs. Seashore entertained the Association at an enjoyable luncheon in their home.

At the business meeting on Saturday noon, a report was rendered by the "Committee on the Federation of Philosophical Associations." Resolutions were adopted as follows:

First: That a committee be appointed to confer with the committee of the American Philosophical Association in the interest of formulating a workable plan of union or federation of the several philosophical associations of the United States.

Second: That, as an Association, we favor some such plan as that presented by our committee to the American Philosophical Association (published in the *JOURNAL OF PHILOSOPHY*, December 5, 1918); but that we are willing to enter into a less binding or formal or a more provisional type of association than is there offered should this seem advisable to the joint committee.

Third: That, in case the American Philosophical Association, at its annual meeting for the year 1920, adopts as a part of its name the annexed words "Eastern Branch," we empower our officers elect to change the name of our association to "American Philosophical

Association, Central Branch;" thereby expressing the assumption that we have formed at least a nominal union with the American Association.

Fourth: That we recommend for the consideration of the joint committee the following propositions: (A) that biennially or triennially there shall be held a Congress of the several Philosophical Associations, or branch associations. (B) That the date of such Congress should fall some time during the summer, preferably in early September. (C) That the place chosen for such Congress should be an attractive vacation or summering place, or, if the conditions seem to favor, some college or university. (D) That a feature of each Congress should be one or two series of lectures or a symposium to be arranged by the joint committee. (E) That the first such Congress be held in the eastern part of the United States in September, 1920, and that the committee of this association be empowered to act with committees of the American and Southern associations for the arrangement and supervision of the meeting, subject to similar authorization of the committees of the American and Southern Associations by their respective memberships.

The existing Committee on Federation was continued with the addition of the new president of the association, Norman Wilde.

The officers elected for 1919-20 are as follows: *President*, Norman Wilde; *Vice-President*, J. E. Boodin; *Secretary and Treasurer*, E. L. Schaub; *additional members of the Executive Committee*, J. F. Crawford, M. C. Otto, A. W. Moore, R. W. Sellars. There were elected to membership Professor Glanville Terrell, of the University of Kentucky, and Professor Leal A. Headley, of Carleton College.

In acceptance of an invitation from the University of Wisconsin, it was voted to hold the next meeting in Madison, Wis., on the Friday and Saturday immediately preceding Easter Day in 1920.

The treasurer's account showed a balance of \$67.42 in the savings account, of \$47.64 in cash and in the checking account, and of \$200 in War Savings Stamps, bought at a cost of \$167.38.

Papers read at the meeting are, in subject and abstract, as follows:

The Logical Approach to Functionalism: D. T. HOWARD.

Psychophysical parallelism, in spite of the severe criticism to which it has been subjected in modern times, continues to be a favored doctrine in psychology. It is considered, not merely a safe and sane refuge from the difficulties of interactionism and epiphenomenalism, but a good working hypothesis. Psychophysical theory is grounded on dualism, and meaningless without it. In the field

of sensation this type of theory would seem to have justified itself by its results. The critics of parallelism, however, ought to be able to show that it fails even in this field, for if it be fundamentally unsound it should betray its weakness wherever employed. The line of least resistance in dealing with psychological parallelism leads to the sensation itself. What is meant by asserting that colors, sounds, and similar phenomena are mental? Probably this, that such phenomena lie outside the chain of causally connected things that constitute the "objective" world. Sensations do possess, however, a diagnostic and explanatory value which proves them to be real members of the real world. It is an error, then, to regard the physical and the psychical as two unlike and incommensurable types of being. Functionalism advances beyond structuralism by reinstating the "dependent" facts of experience as members of an internally organized world. Behavior is defined as a form of response to objects which, as embodying both subjective and objective factors, are forever relative to response. The essential logic of functionalism, therefore, is organic rather than causal. Functionalism tends, however, to remain at the biological standpoint, whose categories are too crude to express the subtleties of the higher thought processes. Meaning, for instance, can only be understood by reference to the infinitely complex organization which unites the manifold items of experience into one rational whole. This organization, without which life would lose its sanity, must be called simply *mental*, and the business of psychology, as a distinct science, is to discover and formulate the nature of the mental organization of experience.

Thomistic Realism and Modern Idealism: E. L. HINMAN.

The moderate realism of the neo-scholastic followers of Thomas Aquinas, especially as represented by Dr. Coffey may profitably be compared with the regular development of modern idealism. In fundamental respects, the two movements are identical. As Thomism unfolds, however, a misunderstanding arises, which results in a spurious opposition between the two lines of thought. The Thomist erroneously conceives that the idealist is holding to the *esse-percipi* doctrine. Now the real motive of idealism is not this, but is rather the conception that each individual thing, each idea, and each pulse of experience, is instinct with the life of the universe, that it finds its truth and reality in the completion of the process which it implies but only partially displays. This seems to be an Aristotelian rather than a Berkelian motive, and ought to be available for the followers of Thomas. Failing to recognize this, the neo-scholastic strives to vindicate the objectivity of our judg-

ments in an assertive and dogmatic manner. The result is that the Thomistic theory of perception gets into difficulties that might have been avoided, and reaches a result that is wooden and in need of re-interpretation.

Negation in Traditional and Modern Logic: R. C. LODGE.

1. Traditional doctrine: Negation on a par with affirmation, and objective. Modern doctrine: Negation not on a par with affirmation, but subjective and indefinite.—Is this a flat contradiction, or can both positions be accepted?

2. (a) The distinction between affirmative and negative as propositional forms, is superficial. Any judgment (apprehension of objective relations) can be expressed indifferently in either form. (b) The nature of judgment itself, as apprehension of reality. Does such apprehension admit of a distinction into affirmative and negative? (c) No such distinction possible. We can distinguish between judgment and absence of judgment (failure to judge)—i. e., between judgment and the negation of judgment—but not between a judgment which is affirmative and a judgment which is negative. (d) Corollary of this position: There is no such thing as a *duplex negatio*. Not-to-judge (the first “negation”) completely excludes us from the sphere of judgment. We can not “negate a negation.”

3. The traditional distinction between affirmative and negative, and the modern distinction between judgment and absence of judgment, represent radically different problems, arising at different levels of logical reflection. There is no clash, for there is no common ground. Both traditional and modern positions can thus be accepted.

The Function of Philosophy in Social Reconstruction. A Symposium: A. H. LLOYD, J. H. TUFTS, G. T. W. PATRICK, G. W. CUNNINGHAM.

A. H. LLOYD. (Paper to be published in full in a subsequent issue of this JOURNAL.)

J. H. TUFTS.

The underlying social and political philosophy of our country has been well described by Professor Perry as democracy in both its aspects; on the one hand, equality with freedom; on the other, self-government with the representation of various interests. In a fairly homogeneous people with open classes, a philosophy of freedom with majority rule has seemed to meet the situation. The war has brought a new consciousness of power with reference both to the

achievements of science and of collective action. This latter shows itself conspicuously in the increase of class consciousness of labor and other groups, and in the conception of production as a national enterprise. Class conscious groups will claim not merely greater income but more definite representation and greater power. Philosophy is therefore likely to be called upon increasingly to interpret the meanings and responsibilities of power as it has hitherto done in the case of freedom. It may (1) enlarge and refine the conceptions of both goods and power which now seem within the grasp of classes not accustomed to them; (2) develop the value of power through cooperation as contrasted with power of mastery over others; (3) develop the conception of responsibility. If organizations of capital and of labor are given greater power we can then more appropriately hold them responsible for results whereas at present both sides disclaim responsibility for poverty, unjust distribution, violence, *etc.*

G. T. W. PATRICK.

There can be no sound and sane social reconstruction not based on an accurate knowledge of the instincts, passions and primal interests of the human unit of which society is composed. Recent studies in social, dynamic and behaviorist psychology have made available a fund of knowledge most vital to the social reconstructionist, but of which he has availed himself but little. No one proposing any radical change in our social and political institutions can afford to be ignorant of the works of such writers as Thorstein Veblen, Carleton H. Parker, Thorndike, Cannon, Ross, McDougall, Watson, Freud and Prince.

In practise, however, the social reconstruction schemes now so widely prevalent are based hardly at all on a study of human nature, but are idealistic plans for the introduction of certain social and political machinery designed to correct certain conspicuous *evils* in our present system, such as the unequal distribution of wealth and opportunity, war between nations (little is said about civil war or internal disorder), political and economic discrimination against women, *etc.* In general, the direction taken by our thought at the present time is almost exclusively economic and political, and our attempts to reconstruct the social order have in view only economic and political relations to the neglect of the larger interests of *life*.

This makes our reconstruction schemes somewhat idealistic and visionary, since it is by no means certain that the actual man with a mass of inherited instincts, interests and needs will live or work contentedly in a standardized economic world under scientific management and the rule of efficiency. If one should read Carleton

H. Parker's list of sixteen human instincts, for instance, one might doubt whether any of them would find adequate satisfaction in the reign of universal peace, universal work, universal equality, and universal economic prosperity that our social reconstruction plans contemplate. In the society of the future we picture men working six or eight hours a day at fully adequate wages, reserving eight hours for sleep and enjoying eight or ten hours of leisure for self-improvement and recreation. War is to be absent, men and women equal, alcohol abolished and all are to be contented and happy.

The actual man, however, the man known to the psychologist, the anthropologist and the historian, has quite a different set of instincts and desires. He has been, through all his history, not a steady worker, but a fighter and exploiter. Life to him is not work and leisure and sleep. Life is struggle, adventure, love, power, competition. Instincts of loyalty, leadership, love of excitement, ownership, constructive and creative workmanship, are powerful factors in human life and must in some way be provided for in the society of the future. Our social reconstruction plans provide for work and wages and safety and equality; but men love play and danger and risk, with a chance to gain or lose. The really happy man is not one who works six or eight hours a day in a government-owned factory, but one who is working twelve hours a day on some invention or machine which he hopes will bring him fame and fortune. Land to *till* for his daily bread is not what man wants, but the *ownership* of land.

No one doubts that the political and economic inequalities of our present social system must be corrected. But they will not be corrected by the sudden introduction of a social system that makes provision only for economic justice and not for the satisfaction of fundamental human instincts. To change these primal instincts will take centuries, and the really fundamental thing in reconstruction, therefore, is education, physical and moral health and training, eugenic control, and the providing of leaders with expert knowledge and high moral standards.

G. W. CUNNINGHAM.

It is generally agreed that the world war inaugurated a new era in human history. This new era must inevitably bring its numerous perplexing problems, the solution of which will demand of us all the power of penetration and analysis we are able to command. Many are enthusiastically laboring to make stable the foundations of the social structure, but our counsel is divided as to the goal to be attained and consequently as to the methods which should be employed in its attainment. What is most needed at present is

a clear understanding of the basal elements of social progress: no programme of social reconstruction can be of any great value unless it springs from clearly conceived fundamental principles. Prerequisite to all efforts at social reform there must be an analysis of the main tendencies of the situation with which we are confronted and which we are struggling to remedy, accompanied by an evaluation of the significance and implications of these tendencies. Such an analysis and evaluation necessarily involve a study of the nature of the social order itself. For our conception of the social order must be the criterion in terms of which our evaluation will be made; most of the practical questions which are before us to-day for answer, questions of internationalism, labor, government, groups within states, *etc.*, are logically secondary and derivative, and can hardly be answered apart from a rather full consideration of the generic concept of the social order. A study of the nature of the social order has not yet been made with sufficient definiteness and objectivity to serve the needs of the present situation. Such a study will necessarily lead on to the problem of the nature of the individual; for the social order can not be grasped in its profoundest significance apart from a thorough analysis of the characteristics of the individual of whose life it is the manifestation.

The Social Purpose of Education: H. W. WRIGHT. (Presidential address, to be published in full.)

Natural Law and the Moral Ideal: B. H. BODE.

In the November number of the *Harvard Law Review*, Justice O. W. Holmes, in an article entitled "Natural Law," defends the thesis that, since there are no absolute standards of conduct, there can be no principle of evaluation at all, except that of struggle and survival. Back of his argument lies the assumption that desires and tendencies are fixed, so that problems of conduct are concerned exclusively with the selection of means to the realization of ends that are predetermined. This standpoint allows no room for intelligence and does not tally with the facts. The development of the child and the control exercised by man over nature both show experimental determination of both ends and means. The position is in the end just a defense of another absolute standard. At the present time its likeness to traditional views is more important than its difference, since all these standards show a tendency to operate in the same way and to exclude intelligence from the direction of conduct.

The Two Ideals: M. C. OTTO.

The supreme philosophical task of the hour is the achievement of a concept of individuality and of society which shall mean the

mutual enrichment of both; a concept of individuality which in the process of its realization shall enrich the common life and a concept of society whose chief function shall be the liberation of the individual's unique potentialities. Suggested social reforms are worthless unless they are based upon the facts of human nature. Man, however, is not a creature of one impulse. He is the center of a variety of impulses, with a more or less permanent bias in favor of one of them. At present the dominant impulse in the case of the vast majority is the impulse to possess. But the war has made it transparent that we are betrayed by a deceptive ideal. We must discover and put into practise a new idealism or face the ruin of what we call civilization. And a promising step in the direction of a better world is a new orientation of life in which the acquisitive impulse is dethroned in favor of the impulse to create. This is not a simple matter, but who shall say it can not be done by men and women who could stage a world war? Indeed, beginnings have already been made in industry and in public education which give a measure of creative opportunity to those who have heretofore been deprived of initiative, adventure, and growth. This is the direction of hope.

The General Will: EDMUND H. HOLLANDS.

Some difficulties in the conception of a "general will," as commonly identified with the activity of the State, may be informally presented. Rousseau's account is unsatisfactory. His real meaning for it seems to be the determination to exercise free and rational judgment; but he does not succeed in expressing this meaning. Hegel identifies the purpose of the State with complete rationality, and makes the State supreme in every respect above all other institutions. This is contrary to the experience of any one who has lived in a Church with a strong and distinctive life of its own; it is especially contrary to the history of the State in this country, where it has been founded and shaped by ecclesiastical and commercial organizations. Bosanquet's defense of the Hegelian position is much more cautious, particularly in his recent writing on this subject. But it appears that he still holds that the State is the only institution or group qualified to criticize and adjust the claims and activities of other groups, and to use force for this purpose. Three questions are suggested: (1) Does this theory sufficiently recognize the use of various kinds of "force" by different groups? (2) Do not other institutions and groups criticize the state, and use "force" of various kinds in doing so? (3) Is not the "state" sometimes a name for the actual success of some group in the use of "force"? Suggestive examples of the difficulties connected with these ques-

tions may be found in the intervention of the Federal courts in the dynamite conspiracy of certain officials of the Structural Ironworkers' Union, and in the Kentucky night-rider cases, some years ago; and, on the other hand, in the recent capture of the state government of North Dakota by the Non-Partisan League. Many of the same people who heartily approved federal intervention in the cases cited seem to be ready to use violence themselves against the perfectly legal operations of the League through the state government.

Plural Sovereignty: NORMAN WILDE.

Some reflections on the reasonings of the political pluralists, especially those of Laski and Cole, with the conclusion that the attempt to establish the theory of plural sovereignty, whether by proof of the actual failure of the state to maintain itself as against other organizations, or by evidence of the functional differences and coordination of groups within a given geographical area, fails because of its lack of recognition of the necessary demand for unity in the life of reason, as well as by the arbitrariness of its limitation of the function of the state. One may escape from the state and its sovereignty by taking refuge in anarchy, but, as long as one retains the conception of sovereignty at all, its unity in a state is inevitable.

The Unit of Civilization: J. E. BOODIN.

The last century has been noted for its tendency to integration in human enterprise, especially in the political and economic realms. But with the integration there has not been a corresponding articulation. The result has been an increasing impersonalism and mechanism, the revolt against which is showing itself in a new process of disintegration, political and economic. From the point of view of culture contribution, the large impersonal units are disappointing. The quest for power and the quest for the good are not congenial companions. The best results in culture seem to be obtained when the unit of control approximates the moral unit, *i. e.*, the personal group, as in ancient Athens, the Italian city republics of the later Middle Ages and some of the small European nations of to-day. Smallness, however, is not the only qualification. The group must have sufficient spiritual complexity within and sufficient contacts without. There must be conflict of ideals in order to stimulate latent genius. The group must be animated by a high purpose. And, finally, the material resources must be adequate for the encouraging of the best cultural efforts. Instead of losing ourselves in a vague internationalism, we need a new emphasis on localism, provincialism and nationalism, with cooperation for more

general ends such as police protection and commerce, but with an intense rivalry in those spiritual pursuits which constitute the ultimate ends of civilization.

EDWARD L. SCHaub.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Moral and Political Philosophy of John Locke. STERLING POWER LAMPRECHT. New York: Columbia University Press. 1918. Pp. viii + 168.

Aristotle's division of philosophy into theoretical and practical has, in one respect, proved to be a great misfortune. It has introduced a split into our thinking, a split which, one may venture the suggestion, has been the source of most of the unfortunate dualisms which have since prevailed, such, for example, as that of labor and leisure, the cultural and the vocational, the scientific and the humanistic. The real source of mischief is not so much the distinction, but the decided preference in favor of the theoretical as inherently superior to and qualitatively more excellent than the practical. This distinction, with its corresponding evaluation, has led to great disproportionateness in the writing of philosophy. Modern philosophy shows a woeful neglect of the practical; it is concerned almost exclusively with "theories" of knowledge. Not only that, but the historians of philosophy have neglected the practical aspects even where the philosophers themselves have manifested a practical interest. Höffding, for example, in his *History of Modern Philosophy*, devotes just twice as much space to an analysis of Book I. of Hume's *Treatise on Human Nature*, the Book on the "Understanding," as he does to Books II. and III. together, the Books on the "Passions" and on "Morals." Falckenberg devotes more than twenty-one pages to Locke's "theory of knowledge" and less than five to his "practical" philosophy.

There is at present, however, a growing tendency to emphasize the practical and to relate philosophy to the social and political sciences. As a result of this emphasis there is a growing demand for a reconstruction of some of the classical philosophers who have written a practical philosophy, but which has been much neglected. The need for a revision of historical perspective in the light of the practical is nowhere greater than in the case of the classical British philosophers, especially Locke and Hume.

The present monograph by Dr. Lamprecht on *The Moral and*

Political Philosophy of John Locke is an attempt, and an extraordinarily successful one, to bring the moral, social and political thinking of Locke into relation to his general theory of knowledge and thus to exhibit Locke's interests in a complete synthesis. No writer has suffered more from an unwise selection than Locke. As a matter of fact Locke's dominant interests were always practical, and this, as Dr. Lamprecht points out, as much with regard to the *Essay concerning Human Understanding* as the *Treatises of Government* or *Thoughts concerning Education*.

Dr. Lamprecht has divided his work into three Books. Book I. deals with "The Traditions in Moral and Political Philosophy Before the Time of Locke." It has been too frequently supposed that Locke wrote quite originally and independently of his predecessors. Quite the opposite is true. "Though he added new ideas of his own and developed the old ideas which he took over from others, he is rather the ripe fulfilment of the past than the herald of the future."¹ In treating of Locke's historical antecedents, the writer gives a brief but excellent account of the early writers of the Law of Nature, the Deists of the seventeenth century, Hobbes and Filmer.

Book II. deals with "The Moral Philosophy of Locke." What baffles most critics of Locke is his inconsistencies. In this book the author is chiefly concerned with an account of the rationalistic and hedonistic elements in Locke's ethics with an estimation of the relation between them. The problem is quite analogous to the problem of the relation between rationalism and empiricism in the *Essay*. All that one can say is that these antitheses had not become prominent at the time of Locke, at least not objects of heated controversy as they subsequently became. Locke's moral ideas involve both rationalistic and hedonistic elements. The most nearly consistent account of Locke's moral theory is to be found in *Thoughts concerning Education*.

Book III., dealing with "The Social and Political Philosophy of Locke," treats of "Locke's Theory of the State of Nature," "Locke's Theory of Political Society," and "Locke's Theories of Toleration and Punishment." Locke's political philosophy is consistently rationalistic, but entirely practical. On its rationalistic side it is based on the doctrine of natural rights, a doctrine closely affiliated with the rationalistic science of the seventeenth century. On its practical side, it is intended as a justification of the Revolution of 1688, the gist of which is that if a right is inalienable it simply can not be given up in passing from a pre-political to political society.

Dr. Lamprecht's monograph is certainly the most thorough and

¹ *The Moral and Political Philosophy of John Locke*, p. 6.

exhaustive study of Locke's practical philosophy which has yet appeared. Its chief value consists in the placing of Locke's interests in a correct historical perspective, and in the re-affirmation of the practical as of ranking importance with the theoretical. There is not so much in Locke to clarify contemporary political problems. The doctrine of natural rights is now out of date, and political democracy, for which Locke wrote so ably, is now fairly well established. The contemporary need is for an industrial democracy. What is of most pertinent contemporary application is Locke's view of toleration.

M. T. McCLURE.

TULANE UNIVERSITY.

Social Process. CHARLES HORTON COOLEY. New York: Charles Scribner's Sons. 1918. Pp. vi + 430.

This book is a collection of essays, most of them intended evidently for the "general reader," giving the author's mature judgments upon a variety of sociological questions. The unifying theme which gives the book its title, and which is most explicitly treated in the first and the last (seventh) parts, is the same that ran through the author's two previous books. All the facts of human life are parts of a process which is organic, social, living and growing. In order to understand a living process the investigator needs to participate in it; when not an actual participant he should imagine himself in it, with the sympathetic insight of the artist, the dramatist. The author himself is eminently successful with this method, showing deep insight into the behavior of all living creatures, from a grape-vine (p. 8) to a modern capitalist.

Part II. is a series of literary essays, dealing with such topics as success, fame, the competitive spirit and discipline. Part III. is on Degeneration. Even the degenerate is treated as a man whom we can not understand without putting ourselves in his place. Degeneration is found in all classes of the population; it may be caused by wealth as well as by poverty. Part IV., on Social Factors in Biological Survival, is very elementary. Part V. deals with Group Conflict. The problems of the abolition of war and the establishment of a new international order, of the conflict of classes and of races, are each accorded a few pages of wise and scholarly advice.

Part VI., on Valuation, is, more than any of the other parts, of interest to the advanced scholar. It consists of four chapters which are reprints, with slight changes, of articles that appeared in the *Psychological Bulletin*, *American Journal of Sociology*, and *Quarterly Journal of Economics*. The first makes an interesting distinction between human nature values and institutional values. The

other three deal with pecuniary valuation. The ideal market would be an institution for the measurement and exchange of values of every sort. Why is it that our actual market falls so far short of the ideal, that it so often measures values falsely, and that it fails in great degree to measure the higher values at all? The answer is that the imperfections of the market, like the imperfections of any other institution, are due largely to historical origins, to lack of flexibility, and to administration by a special class of persons. Pecuniary valuation can be improved, not by taking the higher values out of the market, but by putting them into it. And conversely, the higher values, such as those of scholarship, can be more justly appraised and more adequately paid for only by getting them into the market.

Read by the general public, this book will do great good by disseminating Professor Cooley's wise and broad-minded views on many problems of private and public life. As reading for students it is inferior to the author's two earlier books, for it is too general, it treats no problem thoroughly, and it may encourage some students in their neglect of "mere" facts and of expert knowledge and training. The author—and in this he is not alone among sociologists—fails especially to recognize the philosophical sciences as sources of expert knowledge regarding matters upon which an undisciplined opinion has no value. This is shown by his unrestrained discourses upon many philosophical topics, including the method of science, mechanism, organic wholes, freedom, creative process, moral good, God and the universe. He intimates, it is true, that he has no desire to discuss metaphysics, and that his method of treating these topics is that of "common sense;" but this only shows the more clearly his failure to recognize that the matters in question are philosophical, and that they can be adequately investigated only by the philosophical sciences.

WALLACE CRAIG.

UNIVERSITY OF MAINE.

JOURNALS AND NEW BOOKS

THE AMERICAN JOURNAL OF PSYCHOLOGY. January, 1919. *An Experimental Study of "Feelings of Relation"* (pp. 1-26): JOSEPHINE M. GLEASON.—The experiments show that there are no mental pattern or elements that can clearly be identified as feelings of relation. *The Psychology of Native Sons* (pp. 27-39): HARLOW GALE.—Native Sons are in danger of becoming the victims of petty reminiscence. They need the broader outlook through education and travel. With the proper insights and sense of proportion Native Sons can develop into a strong type of American citizen-

ship. *The Speed of Adjustment of the Eye for Clear Seeing at Different Distances* (pp. 40-61): C. E. FERREE and GERTRUDE RAND.—An apparatus for the testing of the speed of adjustment is described. There is a wide range of individual variation. *An Anomalous Case of Simple Reaction* (pp. 62-65): E. B. TITCHNER.—The case of a very long reaction time to auditory stimulus is presented. *Authorship of the Book of Mormon* (pp. 66-72): THEODORE SCHROEDER.—The author disagrees with Walter P. Prince, whose article of the same title appeared in the *American Journal of Psychology* for July, 1917. The psychologic tests and analysis are criticized and fail in the light of historic evidence. *Emerson's Transcendentalism* (pp. 73-82): REGIS MICHAND.—Replying to Professor Girard's arguments that Emerson was not a true Transcendentalist, he is presented as its great American leader. A fixed and limited standard by which to judge the Transcendental movement is impossible. *Superstitious Belief and Practise among College Students* (pp. 83-102): EDMUND S. CONKLIN.—More than half of the college students admitted having superstitious beliefs. Women had more superstitions than the men. *The Psychology of Figures of Speech* (pp. 103-115): JUNE DOWNEY.—The mental basis of figurative language is the substitution of one object of thought for another. This substitution gives rise to esthetic pleasure. *Book Notes.*

Wallis, Wilson D. *Messiahs: Christian and Pagan*. Boston: Richard G. Badger. 1918. Pp. 276. \$2.00.

NOTES AND NEWS

THE twentieth Summer Session of Columbia University, which closes on August 15th, has had a record attendance of 9,726. In philosophy and psychology there has been a great variety of courses offered, both by those regularly members of the faculty of the University and those visiting from outside institutions. Since the major interest of many summer session students lies in the field of education, a large part of the psychology offering was made through Teachers College and stressed the educational application of the subject. The courses given in these two departments were as follows:

PHILOSOPHY.

Principles of Scientific Method. DR. SCHNEIDER, of Columbia.

Introduction to Philosophy. DR. SCHNEIDER.

Human Nature and Social Organization. PROFESSOR MCCLURE, of Tulane University.

Philosophy and Literature. PROFESSOR McCLURE.

Democratic Ideals: their historical origins, philosophical foundations, and reconstructive programmes. PROFESSOR H. B. ALEXANDER, of the University of Nebraska.

French Humanitarianism. PROFESSOR ALEXANDER.

Radical, Conservative and Reactionary Tendencies in Present-Day Morals. PROFESSOR MONTAGUE, of Columbia.

Present-Day Philosophy and the Problem of Evolution. PROFESSOR MONTAGUE.

PSYCHOLOGY

Elements of Psychology. PROFESSOR WOODWORTH, of Columbia.

Introduction to Psychology. PROFESSOR WOODWORTH.

Social Psychology. PROFESSOR WOODWORTH.

Experimental Psychology. DR. POFFENBERGER, of Columbia.

Applied Psychology. DR. POFFENBERGER.

Abnormal Psychology. PROFESSOR H. L. HOLLINGWORTH, of Columbia.

Mental Measurement. PROFESSOR H. L. HOLLINGWORTH.

Laboratory Work. PROFESSORS WOODWORTH and HOLLINGWORTH, and DR. POFFENBERGER.

Educational Psychology. PROFESSORS RUGER and WHITLEY, of Columbia.

Principles of Education. PROFESSOR MADDOX and DR. REISNER, of Columbia.

Observation, Experimentation, and Teaching in connection with Special Classes. MISS KEATOR, of the Dept. of Education, Duluth, Minn.

The Psychology of Childhood. PROFESSOR WHITLEY.

Psychology and Treatment of Exceptional Children. DR. L. S. HOLLINGWORTH, of Columbia.

The Measurement of Intelligence. DR. L. S. HOLLINGWORTH.

Educational Psychology. PROFESSOR COLVIN, of Brown University.

Psychology of the Secondary School Subjects. PROFESSOR COLVIN.

ONE of our subscribers is anxious to obtain two numbers of this JOURNAL, Vol. XV., No. 23 and Vol. XVI., No. 3, with which we are unable to supply him. Will any one having either one or both of these numbers please communicate with Mr. E. S. Brightman, 42 Braeland Avenue, Newton Centre, Mass.?

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THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THOMAS HOBBS AND THE APOLOGETIC PHILOSOPHY

THE task of mounting the seventeenth century originals of the British bourgeoisie philosophy upon the social and political background which sets off their form and hues most clearly is vastly simplified by the presence in the England of that time of an extraordinary figure, Thomas Hobbes. Just as the analysis of the exceptional case, the freak, the pathological specimen, is frequently much more informing than a prolonged study of a number of normal cases, so an examination of Hobbes throws a glare of light upon the whole period in which he was so universally *persona non grata*. A man so cordially detested as Hobbes must certainly have violated the most cherished sensibilities of the whole gallery of his contemporaries, and a résumé of his insubordinate iconoclasm ought to reveal in counterpart the most popular idols of the day.

The distinguishing characteristic of Hobbes's work, that feature of his theories which stuck in the crops of his intellectually well-connected adversaries, can be developed best by placing Hobbes alongside a modern evolutionary sociologist of the Sumner type. Sumner's *Folkways* may be conveniently used in this connection. There the theory is set forth that the whole structure of society consists of "folkways," or customary ways of doing things, which have been evolved by trial and error through the age-long struggle of men to adapt themselves to the mode of life required of them by the circumstances of their environment, numbers, and technological capacity.

This naturalistic and evolutionary view of the origin and development of the governing conventions of social life has a positive and a negative phase. On one hand, it sees in rights and duties only "rules of mutual give and take in the competition of life which are imposed on comrades in the in-group, in order that the peace may prevail there which is essential to the group strength." Hence it follows that they "can never be 'natural' or 'God-given,' or absolute in any sense." "Therefore morals can never be intuitive." On the contrary, "the morality of a group at a time is the sum of the taboos and prescriptions in the folkways by which right conduct is

defined." "The folkways are the right ways to satisfy all interests, because they are traditional, and exist in fact. . . . The tradition is its own warrant." "World philosophy, life policy, right, rights, and morality are all products of the folkways."

When a seventeenth-century writer is to be compared with one of the twentieth century, common decency demands at least a bare suggestion of the advantage which has accrued, as an unearned increment, to the latter. No amount of pre-vision and freedom from current superstition could have outweighed the biological and anthropological deficiency under which Hobbes labored. We can hardly expect him to discuss the evolution of society as extending back before the existing race of men to the Piltdown or Trinil races, or even to the higher anthropoids. Nor can he draw upon a great literature of ethnological studies as Sumner does to show by force of comparison the conventional character of even the most "natural" and "sacred" taboos. The only possibility open to his imagination is that of a situation in which no conventions have as yet come to prevail.

This is exactly what Hobbes does. Imagine, he says, the natural (*i. e.*, pre-social) condition of mankind, "without a common power to keep them all in awe." With unerring perspicacity he sets forth the negative phase of Sumner's theory. In the time "wherein men live without other security, than what their own strength, and their own invention shall furnish them withal—in such a condition, there is no place for industry; because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, no use of the commodities that can be imported by sea; no commodious building; no instruments of moving and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is the worst of all, continual fear, and danger of violent death; and the life of man solitary, poor, nasty, brutish, and short." "To this war of every man, against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice have there no place. Where there is no common power there is no law: where no law, no injustice. . . . *Justice, and injustice are none of the faculties neither of the body, nor mind.*"

But for the quaint phrasing this sentence might have been written by Sumner.

It is not strange that Hobbes should have believed that this imaginary state of affairs actually existed among contemporary savages. This belief was due to his pardonable ignorance of savage life; it very certainly does not mean that he intended the state of nature to be interpreted as the equivalent of what moderns have found savage society to be, quite the contrary.

Likewise, it is hardly surprising that Hobbes's positive account of the origin of *mores* sounds highly artificial, to the sophisticated ears of a modern sociologist. Whereas an evolutionist like Sumner carefully avoids all mention of the primordial origins of things, and discusses traditions without assuming that they ever had clear cut beginnings, Hobbes, having developed the institutional character of social conventions by contrast with an imaginary state of nature, would obviously proceed to outline the circumstances of human nature and its material environment which could be counted on as conditioning factors in the evolution of society.

Hobbes proceeded, that is to say, exactly as Sumner would have proceeded in the seventeenth century. There are certain conditions which in the nature of the case¹ impose themselves, and Hobbes proceeds to enumerate them. That is, the growth of society must depend upon human capacity for cooperation, and willingness to forego some interests that might lead to conflict; it must also depend upon a mutual willingness to perform contracts (and in this law of nature consisteth the fountain and original of justice), and upon the spirit of give and take. These among others are the conditions which must be satisfied if organized society is to result; but there is another more important even than these. The exigencies of man's unruly nature, and the pressure of population on food supply stand in the way of a Garden of Eden society (just as they stand in the way of a League of Nations) in which each is always to make the necessary social adaptations of his own free will. It is necessary that there be some Sovereign Power, some official Law and Order, vested in some Supreme Authority.

From this point Hobbes proceeds to his famous discussion of the personal sovereign as, in his opinion, the only efficacious custodian of the Sovereignty, and to his equally famous denunciation of the di-

¹ "Laws of Nature." Hobbes's interpretation of *jus naturale* (concerning which so much has been written) in itself affords the clue to his whole social philosophy. The common understanding of *jus naturale* was of a law of nature, not in the modern sense (*e. g.*, the laws of thermo-dynamics), but in the sense that certain modes of conduct are embodied in the very nature of things, and observable in this capacity by right reason. Thus Grotius states that private property, although it was established on earth by man's will, once established is protected by *jus naturale* which God himself can not change. All this is precisely the conception which Hobbes absolutely denies. There is only one *jus naturale*, which is eternal and immutable and not to be gainsaid by Omnipotence Incarnate, and that is "the liberty each man hath, to use his own power for the preservation of his own life." This is not a mere difference between "law" and "right"; it is the difference between supernatural absolutism and evolutionary relativism. Note also that Hobbes's *leges naturales* are laws of nature in the modern sense. Like the laws of hygiene, they prescribe the conditions, ascertainable by reason (science), under which alone society (health) is possible.

vision of Sovereignty between king and church. Many students of this period have felt that this political paradox—absolute monarchy founded on consenting contract—is sufficient to explain Hobbes's unacceptability to both Cavaliers and Roundheads. Others have laid chief emphasis upon Hobbes's castigation of the churches. Without doubt both these things added to his infamy.² Many passages in the anti-Hobbian literature, however, reflect the fear entertained by High Church Bishops and covenanting politicians of a philosophy that undermined not merely crown and miter, but civilization itself.

The Bishop would find in Hobbes, just as he now finds in Sumner, the explosive with which the whole social order may be blown up. He does not mind a bit of denunciation; the thing that sets him trembling is the philosophy of social revolution, the theory of Bolshevism. Turn to Sumner and look for the practical consequences of the theory of the "folkways." "Property, marriage, and religion are the most primary institutions. They began in folkways. They became customs." Hobbes is no less explicit. "In these four things, opinion of ghosts, ignorance of second causes, devotion toward what men fear, and taking of things casual for prognostics, consisteth the natural seed of religion; which by reason of the different fancies, judgments and passions of several men, hath grown up into ceremonies so different, that those which are used by one man, are for the most part ridiculous to another." "It is consequent also to the

² It is a common saying that Hobbes justified absolutism but not divine right, revolt but not disobedience, as an expression of what Robertson calls his "timorous and worldly" disposition, and because he "had a mind to go home." But A. F. Pollard, who probably knows more than anyone else about the Tudor period, sees more in Hobbes's philosophy than "weasel words." "The *Leviathan* is the best philosophical commentary on the Tudor system: Hobbes was Tudor and not Stuart in all his ideas, and his assertion of the Tudor *de facto* theory of monarchy as against the Stuart *de jure* theory brought him into disfavor with Cavaliers." (*Henry VIII.*, p. 433, note. See also Pollard, *Factors in Modern History*, pp. 172-179.)

Of course a broad interpretation of the religious issue will include the entire discussion. If you say that the dispute was essentially ecclesiastical, in the sense that Hobbes denied any eternal and immutable (Divine) sanction to any folkway, basing even his preference for absolute monarchy on practical (un-theological) considerations, while all the rest of the world insisted on grounding their folkways on *jus naturale* and so ultimately on God—you have summed up the entire problem. This is the line of attack taken by Dewey in his recent essay on "The Motivation of Hobbes' Political Philosophy," in *Studies in the History of Ideas*. There is one danger, however, in the language of this exposition. The issue, of course, is not merely between a theological sociology and a godless one, but between a system which, being of putatively Divine origin, must not essentially be changed, and one which obviously might be completely overthrown at any time, should Hobbes's readers agree with his naturalism and reject his argument for monarchy.

natural condition of mankind, that there be no propriety (*i. e.*, private property), no dominion, no *mine* and *thine* distinct; but only that to be every man's that he can get; and for so long, as he can keep it."

This is not the stuff cathedral sermons are made of even to-day. It is a flat denial of the divine ordination not only of church and state, but of the sacrosanct institution of property. In all ages there are many people whose position in the community lends weight to their opinions who find such anarchistic sentiments as these inconceivable; harboring such beliefs a man is dangerous to the (business) community however much he may protest his loyalty to the (Stuart) administration.³

In the seventeenth century these views were not only unbelievable; they were incomprehensible. Consider that a contemporary and contestant of Hobbes wrote a learned hodgepodge in which he essayed to show that God gave the earth in fief to Adam and that the Stuart kings derived their title from this deed by a more or less devious route, and that this essay was not only not laughed out of court but was taken seriously enough to enlist no less a man than John Locke in the weighty task of scholarly refutation. It is no wonder that when Hobbes called upon men of this intellectual temper to open their eyes to the conventional character of their most cherished institutions by imagining a state of nature prior to the origin of folkways, their imaginations played out.

Their instincts, however, did not flag. Hobbes was universally and authoritatively denounced as an atheist—not an atheist who feels some doubts about Transubstantiation but salutes the State with pious genuflection; but an atheist who is undermining Property, the foundation of Law and Order. This denunciation took two forms, corresponding to the two principal types of metaphysical temperament. If you wish to place your moral idiosyncrasies be-

³ It is interesting to note that an intellectual conviction of the superiority of the existing order makes no amends to a complaisantly unintelligent public for an author's scientific freedom from current superstition. Sumner is no better received for having written that the folkways are justified by their evolutionary survival, and it helped Hobbes little, in the long run, that he was an ardent supporter of the monarchy. What is demanded is not faith in existing institutions but instinctive (*i. e.*, *unthinking*) docility.

Robertson and Dewey both call attention to the readiness of Harrington to praise Hobbes, though he must have felt Hobbes's monarchism to be a stumbling block in the path of republican ideals. The fact is that Harrington also was free from the popular superstitions; he no more believed in the divine ordination of Parliament than of the throne. Therefore, as a regular resident in the Tower of London he felt no vested interest at stake, and could argue the case with Hobbes quite calmly. *Cf. Oceana, passim.*

yond peradventure of a doubt you can insist either that they are deduced from the very nature and constitution of the universe, or that your way of doing things springs from unalterable Human Nature. In either case the intention of the argument is the same—to show that the *status quo* can not (*i. e.*, should not) be revised.

The former of these two positions was maintained against Hobbes's "atheism" most clearly by Ralph Cudworth, a representative of that group of mathematical mystics, the Cambridge Neo-Platonists. His editor (a bishop) states that had his book come abroad "as early as it was written, it had served for a proper antidote to the poison in some of Mr. Hobbes's writings." Cudworth's objection to Hobbes goes straight to the point. Hobbes has asserted that where there is no established order there is no such thing as just and unjust, right and wrong; where these things exist they are established by the social order of which they are the expression. In opposition to this Cudworth demonstrates with unimpeachable scholarship that "Omnipotence itself can not by meer Will make a Body Triangular, without having the Nature and Properties of a Triangle in it," and therefore that "we must needs say that nothing is Morally Good or Evil, Just or Unjust by meer Will without Nature, because everything is what it is by Nature, and not by Will." It is thus made to appear that the things to which a Master of Christ's College, Cambridge, cleaved instinctively in the latter part of the seventeenth century are clearly a part of the eternal and immutable nature of things. It will be seen that this is not the philosophy of revolution.

It is the argument from human nature that weighs heavily today, however. The line of intellectual tradition which it typifies has extended continuously from Hobbes's time to the present. Then as now its major assumption was that human nature is essentially sound. All this is summed up by Bishop Cumberland, who wrote the most satisfactorily thorough-going contemporary refutation of Hobbes, in the word "Benevolence." Commencing with the assumption of man's ineradicable predilection for a life of virtuous social give and take, Cumberland found in the society of his time the most perfect expression of the sweet spirit of the "original Adam."

It must not be supposed, however, that his picture of human nature was all give and no take. It is true that Cumberland, not being cursed with an incontinently logical frame of mind, did sometimes utter the word "Benevolence" with an unction that implied utter abandon of all thoughts of self. This is apparently done to afford a vivid contrast with Hobbes's sordidly egotistical pre-social man;

it does not affect the main argument. For if one reads continuously and is not misled by the pontifical invective with which the refutations of Hobbes are elaborately decorated, it is perfectly clear in the end that it was not Hobbes's supposedly uncomplimentary theory of human nature which provoked so much eloquence but rather the evolutionary theory of institutions for the support of which it was created. Clearly, therefore, one should examine Cumberland's human nature not so much for its intrinsic differences from Hobbes's pre-social man, but rather with eyes alert to detect the insertion into "human nature" of the institutional order which will then appear to spring out of it.

This task will be easier for the reader who has not become so thoroughly identified with any one of the formal disciplines of the schools as to have ingrained in his mind an ungovernable propensity for following up the "categories" of his particular discipline. Cumberland himself does not invite the reader to error; he has stated the plan and purpose of his work with the greatest clearness, and not at all in such language as is commonly employed in distinguishing one ethical school from another.⁴ His title indicates that his interest is centered upon the one point of the inviolability of moral (social) institutions. In the first paragraph of his introduction he announces that the purpose of the book is to show that "all moral and civil knowledge" has its "foundation" in the laws of nature. His first reference to Hobbes, attempting to fix "the point that Hobbes aims at"—the fundamental contradiction to his own position—states that Hobbes's theory is that moral and civil principles have no further sanction than that which accrues to them through their incorporation into some actual social order. Thus Cumberland himself states the issue perfectly sharply as an issue between institutional relativism on Hobbes's side, and moral absolutism on his own. The tough-mindedness of Hobbes's pre-social man and the tender-mindedness of Cumberland's human nature are quite accessory to the main argument.

Stripped of all such logical accessories Cumberland's fundamental axiom ("law of nature") is that man is so constituted that he naturally seeks his own good (happiness) through efforts exerted

⁴ This leads Albee to remark in the course of his *History of English Utilitarianism* that Cumberland, though no mean thinker, was, however, "so utterly lacking in a talent for exposition that the adequate presentation of his views is a matter of peculiar difficulty." One has to "extract it from the author's own system." "The order of exposition is in many respects so unfortunate that one is tempted to disregard it altogether," etc. This is merely to say that the formal historian of utilitarianism is interested only in the accessories, not in the main current, of Cumberland's argument.

in behalf of the general good ("the happiest state which each can possibly enjoy"). This, of course, is simply the familiar utilitarian conviction that the members of this species are so fortunate as to be possessed of such beneficent predilections that they just naturally go about the world minding each other's business and helping each other over the curbstone of life, with the result that (if only they are left alone by monarchs and mercantilists, who presumably have failed of the otherwise universal benevolence) they straightway arrange their affairs into the best of all possible worlds. The names which later utilitarians have applied to man's sovereign impulse have varied somewhat from generation to generation; but whether it is known as rational benevolence, or a natural preference for higher pleasures, sympathy, moral instinct, or simply as Cumberland's benevolence, the thing is the same.

This inveterate propensity for "doing unto others" which Cumberland takes to be the distinguishing mark of the species has seemed to many authorities to be the precise antithesis of the brutishness of Hobbes's pre-social man. Yet Hobbes provided man with an intellect capable of appreciating the folly of a "state of war" and the advantages of every man's "striving so to accommodate himself to the rest" and even endeavoring that he which giveth a benefit "have no reasonable cause to repent him of his good will." If "doing unto others" has as its end that the same be done also unto you, benevolence and astuteness have much in common. Certainly this common element gathers force when benevolence is described, by Cumberland, as comprehending "that affection which influences us to will and to do Acts pleasing in the Sight of our Superiors: And, what kind of Benevolence or Affection it is, which especially and specifically is distinguished by the Term *Piety* towards *God*, our *Country*, and our *Parents*."

This complacent piety is the tonic upon which all the Cumberlandian harmonies are built. The benevolent conception of human nature is but a transition passage between the principle theme and its inversion. A Cumberland, *integer vitæ scelerisque purus*, looks upon the social world in which he lives with humble and reverent eyes and finds it good. He sees in human society a marvel of beneficent cooperation. His eyes simply do not register the evidences of organized conspiracy of the strong against the weak. Clearly such a state of bliss can be no evolutionary accident (*à la* Hobbes), thrown up in the course of a brute struggle for existence. It must be the consummate expression of the very nature of man, and therefore of God.

But, the argument will forthwith run, since it is the very nature

of each man to seek first the general good (that all these things may be added unto him), it follows that the sum of the joint activities of all men taken together must be just such a general cooperative state of happiness as the benevolent soul would naturally cleave to. Therefore the existing order of things, founded upon this divinely human nature, a little lower than the angels, takes its fundamental soundness directly thence. No further proof is necessary, and whatever correlation may be exhibited between the beneficent character of various institutions and benevolent humanity is to be taken as illustrative rather than forensic.

It must be admitted at once that this statement is not a simple recapitulation; accordingly the reader may feel that when these initial assumptions of the argument were vaguely felt rather than so explicitly stated in the text, tacitly acknowledged alike by pious writer and deferential reader, the remaining steps in the scholastically logical process probably appeared in a much better, because intellectually dimmer light. It is equally clear, however, that the modern reader, who of course will wish to be free of any conventional inhibition, will likewise wish to bring forth into light of day whatever emotional convictions may be found at the bottom of the philosophical well. He may even insist upon some such crude brevity as this: you begin with a placid acceptance of the comfortable world—that is, as a contentedly uncritical member of the comfortable classes. Your shocked rejection of a theory which implies, so your instincts aver, that things might be different, leads you to see that this comfortable world is founded on the very nature of man. Then taking an appropriately loose but optimistic theory of human nature as your primary axiom (*lex naturalis*) you proceed to deduce from it as an inescapable conclusion the opinion of the existing order with which you commenced.

It would be impossible to prove by learned citation to the satisfaction of any scholar convinced of the contrary that this is substantially the burden of the utilitarian philosophy as stated in the first great English treatise on the subject, Cumberland's *De Legibus Naturæ*. Such an attempt at proof would still be no more than a suggested interpretation which must necessarily be accepted or rejected by each reader on the basis of his own intellectual (emotional?) predilections. Detailed proof would be supererogatory in any case. This may not be said perhaps of one or two bare comments on the main plan of the book.

Cumberland demonstrates from the very first that he is not capable of the feat of imagination by which Hobbes pictures mankind stripped of all folkways. He talks of what a "judge" or a "nation" would do in this explicitly pre-social state, and even offers

(in Chapter VII) to show that this pre-social "state of war" would be unlawful.⁵ At the same time he makes it evident at the very beginning and by constant recurrence throughout the five chapters given over to disputation that his chief obsession was Hobbes's failure to ground upon the rock of divine ordination such institutions as private property, which Mr. Seldon had proved "even from the Time of Adam was universally received and established as a Right; and which Right he proved the Gift, Appointment and Designation of Almighty God himself."

Having assumed benevolence as the law of nature by dint of contradicting Hobbes's (supposed) ideas, the author devotes the last four chapters to the task of deriving from it the whole structure of things as he knows it, from the decalogue to the beheading of Charles I. The reader may gain perspective from the fact that one entire chapter is assigned to property and its privileges and benefactions. Cumberland even makes out a blank check by the use of which "every Reader may, by his own Skill, form the law enjoining the Acquisition and Exercise" of whatever virtuous tactics the author has omitted to describe. In conclusion he hurls at Hobbes with a Jovian gesture that most crushing of all indictments—treason.

Apparently it was Cumberland's desire that no reader should fail to see that this was the keynote. That is to say, the utilitarian theory had already assumed definite form in the seventeenth century as the intellectually sophisticated expression of emotional reluctance to serious change. As yet, however, it expressed only the highly held belief that whatever may be said of monarchy (and equally bitter opponents of Hobbes differed flatly on that point) the main structure of society, upon which the form of the national administration is a mere superstructure, is to be sanctified and preserved inviolate. A study of the later developments of this social philosophy will show that while it became definitely aligned in the eighteenth century against kings by divine right and their enfranchised (mercantilist) monopolies, as disturbers of the natural order, its opposition to the proletarian movements of the nineteenth and twentieth centuries indicated that it has never lost its character as the philosophy of the *status quo*.

C. E. AYRES.

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⁵ Probably nothing has so prejudiced Hobbes in the minds of succeeding generations as the silly contemporary versions of the "state of nature." The whole idea of social relativity is a difficult one even for moderns to grasp, and Hobbes's contemporaries, having no wish to grasp it, have effectually prevented later generations from reading what Hobbes wrote. Thus Rousseau, who might have received great aid and comfort from Hobbes, wasted his time refuting the Cumberlandian version of the state of nature. So also Veblen, a thoroughgoing Hobbist, disparagingly associates Hobbes's state of war with neolithic culture.

TELEOLOGY AND PRAGMATISM: A NOTE

I HAVE read with interest Mr. Warbeke's article on "A Medieval Aspect of Pragmatism." The point of real significance appears to be the attempt to turn the pragmatic theory that true knowledge is predication that leads to good results, into a tacit admission of the teleological character of reality. The formula would be

Reality.....	True knowledge.....	Good Results
Reality.....	False knowledge.....	Bad results

Stripped of all adornment, the reasoning is that since true knowledge on the one hand refers to the real world and in some sense depicts it, and at the same time leads to good results, reality must be of such a character as to lead to good results. For if the content which is known is not teleological, how can the knowledge of it be so, knowledge being nothing but a report of that content?

It is difficult to avoid pointing out the logical flaw in the argument in the very statement of it. Because reality *as known* is teleological is no proof that reality *as such*, is. By being known, the pragmatist might reply, the purposive character breaks out. An unsuspected poison operating on an ignorant victim may not be looked upon as tending to realize an end, though it may cause an event. But the same poison as known by the chemist may be used to destroy insects which are spoiling our crops. The act of knowledge may be the very factor that renders the world practically rational. If it be objected that the point is that the good results are the criteria of knowledge, it may be replied that while the satisfactory utilization of a content establishes its validity, it does not follow that the content as such is something purposive. While I admit all the implications contained in the constant reference to the varieties of pragmatism, I believe that most brands of the doctrine would modify Mr. Warbeke's formula to

Real World.....*Qua* truly known.....Good results
which of course is a quite different matter.

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PRAGMATIC TELEOLOGY

IT would, indeed, as Professor Warbeke says in the April tenth issue of this JOURNAL, surprise and chagrin those of us who are impressed with the value of pragmatism to find that it "is a descendant of a medieval church doctrine and that its antecedents consorted with those thinkers who tried to make gold from sulphur and believed in the seven days of Creation" (p. 207). Yet, since it is evident that Professor Warbeke has himself suffered the shock of this discovery, it is with the hope of rescuing him from his dismay that I undertake this answer to his paper.

Following his example, it will help to clarify the problem if we can agree upon what is the unifying principle in the various pragmatic schools, which range from the humanistic to the behavioristic, for that there is a significant common principle I should maintain with Professor Warbeke against those who feel that the term pragmatism has been so stretched in covering widely differing philosophies that it is no longer useful even as a blanket term. Professor Warbeke believes that humanism is the principle fundamental to all varieties of pragmatic doctrine, and humanism taken in its widest sense as a tendency to interpret all reality in terms of human nature, that is to say, according to the dictation of desire, instinct and the will to believe. Certainly if this thesis can be established there is reason to grant much similarity between pragmatism and such medieval philosophies as Augustine's and his successors'.

I for one, however, can not accept Professor Warbeke's analysis, in the first place because in the history of this philosophical movement pragmatism has been used as a wider term than humanism,—one wide enough to reconcile such divergencies as exist between humanism and behaviorism. To the humanism of Professors James and Schiller we should contrast rather than compare the functionalism, or philosophical behaviorism of Professor Dewey—yes, and of Professor James himself. The humanistic wing has not broken with the dominant idealistic tradition, and therefore by regarding the principle of personality as ultimate, it does, as Professor Warbeke says, tend to read off the nature of reality as constituted by the nature of man (*cf.* Dewey: *Essays in Experimental Logic*, p. 325, for a similar estimate of humanism). The reason for this is that if mind is regarded as a spectator of "reality" and no provision is made for the understanding of knowing as a dynamic relationship between the agent and his world, the purposes and meanings which are actually found in cognitive experience are placed, according to the point of immediate interest, either in the reality or in the mind

knowing that reality. Then, when the need for agreement between ideas and their objects becomes distressingly evident, it is easy, if not necessary, if one is unwilling to destroy the reality, to describe it in terms of human teleology even when it is reality as such, and not reality as known, which is in question. The consistent pragmatists, namely the functionalists, instrumentalists or behaviorists, have departed from the Kantian tradition which considered knowing as a process of constituting objects by adding to sense data a relationship to a self, mind, consciousness or ego—name it as you will—and have by this departure outgrown their humanism, which even in James was only one thread in a vastly more significant whole. Positively, consistent pragmatists say that in conscious experience, which is one type of relationship maintaining between objects and living beings, the objects change as the behavior of the organism toward them changes and that the change is one of meaning. Here then teleology enters, and the recognition of it is what unites all pragmatists, but consistent pragmatists do not agree with their more dualistic brothers of the humanistic school in defining this teleology. For the latter it may make sense to say that reality as such is teleological but the former say only that reality as known—i. e., by virtue of an active relationship which it may assume—is teleological. I am using the word teleological as I understand Professor Warbeke to use it, to indicate a control other than mechanical and of the nature which we call purposive. It is the direction of action by meaning, by an end to be attained.

If we take James at his worst we may accept much of what Professor Warbeke says in criticism of his humanism. When we consider James's all too well known formulation of truth as that which by serving the agent's purposes or desires, is "in so far forth" true, we must agree with Professor Warbeke that it is a dangerously anti-intellectualistic attitude. It is only fair to James, however, to remember that, pioneer though he was, he repeatedly went beyond this humanistic formulation. We should do injustice to his scientific temper, his logical conscience, did we fail to recognize the weight he placed on other than humanistic considerations in his analysis of the problems of knowledge and truth.

Even the often quoted comparison of pragmatic method to a corridor (*cf. Pragmatism*, p. 54 ff.) is far from being the viciously anthropocentric doctrine of the nature of truth which Professor Warbeke takes it to be. James formulated in this metaphorical way a suggestive and consistent theory of knowing as instrumental. He speaks of the function of ideas in carrying us "prosperously from one part of our experience to any other, linking things satisfactorily,

working securely, simplifying, saving labor" (*ibid.*, p. 58). One can scarcely accuse him in this instance of conformity to the standards of medieval theology in regard to truth, a charge I understand Professor Warbeke to make, when he expressly says that what truth in our ideas and beliefs means to our leading pragmatists—he mentions Dewey and Schiller specifically—is "the same thing that it means in science" (*ibid.*, p. 58).

The criticism upon James's exposition which Professor Warbeke might well have made is that James stops short of an adequate explanation of just how it is that "ideas" are instrumental. James observes accurately the purposive nature of cognition, but he fails to grasp the implications of this, although of course not being a pragmatist it would be extremely difficult for Professor Warbeke to supplement James on this point.

But, to return to the point at hand, James, indeed, goes very far in guarding his theory of satisfactory leading from the very interpretation of it which Professor Warbeke makes. He testifies to "the immense pressure of objective control under which our minds perform their operations" (*Pragmatism*, p. 233). To define the position of pragmatism in regard to truth he writes: "Her only test of probable truth is what works best in the way of leading us, what fits every part of life best and combines with the collectivity of experience's demands, nothing being omitted" (*ibid.*, p. 80).¹

One can, it is true, point to the individualistic claims for satisfaction in this definition, but if one does so, one should in fairness to James notice the objective demands as well, and not forget that James explicitly states that: "Consistency both with previous truth and novel fact" is of the two demands "always the most imperious claimant." (*Pragmatism*, p. 217. Cf. also Dewey: *Essays in Experimental Logic*, p. 324.) Even in "The Will to Believe," in which critics usually note James's theory that truth is the emotionally satisfying, James is careful to guard his statement to this effect with the parenthetical statement "in addition to meeting logical demands." (*The Will To Believe*, p. 110. For a similarly cautious phrase, cf. *ibid.*, p. 76.)

¹ The question immediately following this statement is whether, if theological ideas and the notion of God in particular should satisfy these demands—and I call attention again to the fact that these conditions are inclusive of logical demands—pragmatism could possibly deny their truth. Critics of James, and in this number I must include Professor Warbeke, are all too ready to ignore the fact that James speaks in such cases in carefully conditioned sentences, using a subjunctive rather than an indicative mood. Professor Warbeke writes: "And throughout we have the implication and direct statement that what men think matters little, so long as it does not stand related to that good" (p. 209).

There is above all James's full and careful description of truth as the fulfilment of promise, in which he speaks of truth as something happening to an idea. In his own words: "Its validity is the process of its validation" (cf. *Pragmatism*, pp. 201-202). In this interpretation the practical consequences which are so often a stumbling block to the understanding of James prove to be the continuous and harmonious adjustment of behavior to the developing implication of the object.

While we are discussing James's theory of truth, there is an application of it in *The Varieties of Religious Experience* which is too crucial and too evidently misunderstood by Professor Warbeke to pass unnoticed. Professor Warbeke interprets James as saying that "moral qualities are truly existent in the character of the Deity" because these qualities affect human conduct (p. 208). What James really says is: (1) "The best method of discussing points of theory is to begin by ascertaining what practical difference would result from one alternative or the other being true" (*Varieties of Religious Experience*, p. 443). As illustrative of his meaning he cites Locke's analysis of personal identity, Berkeley's analysis of matter, Hume's analysis of causation. He mentions Dugald Stewart, Thomas Brown, James Mill, John Mill, Professor Bain, and Shadworth Hodgson as men who have employed this method. (2) He identifies this with Charles Peirce's principle of pragmatism, with the conclusion that a concept has positive significance, i. e., is more than verbal, only in so far as it is capable of analysis into meanings which can be experimentally tested, by which he means lead to possible differences of practice if they are true. (3) To make clear his point he analyzes the concept "God," first as to metaphysical attributes, which he finds verbal merely, and second as to moral attributes. In regard to the latter he admits: "If dogmatic theology really does prove beyond dispute that a God with characters like these exists, she may well claim to give a solid basis to religious sentiment. *But verily how stands it with her arguments?*" (*ibid.*, p. 447, Italics mine). His final conclusion, which one would never surmise from Professor Warbeke's report of it, is that "we must, therefore, I think, bid a definitive goodbye to dogmatic theology" (*ibid.*, p. 448).

Another important point in regard to which I find myself unable to accept the interpretation of Professor Warbeke (p. 213) is with reference to the meaning of James's statement that "Truth lies in *rebus* and is at every moment our own line of most propitious reaction" (*The Meaning of Truth*, p. 74). This and a further quotation (*ibid.*, p. 163) establish for Professor Warbeke the evidence of

pragmatic belief in "a world in which teleology obtains." As I follow James's development of the statement that "truth lies in *rebus*" I find this: "the whole mission of the pre-existing and insufficient world of matter may simply be to provoke thought to produce its far more precious supplement" (*ibid.*, p. 80) and then most significantly "knowing in short may . . . be only one way of getting into fruitful relations with reality" (*ibid.*, pp. 80-81). This might easily pass for a general statement of Professor Dewey's position, the full implications of which we must admit James never saw, or we should not find him wavering between functionalism and representative idealism as we find him doing in this connection, when he adds the unfortunate amendment, "whether copying be one of those relations or not."

In estimating James's position as a pragmatist one must carefully distinguish between his suggestive attempts to break away from the traditional idealistic interpretations of the relation between object and idea and his frequent relapses into old ways of thinking. Not even in the *Essays in Radical Empiricism*, as I have elsewhere maintained (*cf.* this JOURNAL, Vol. XV., No. 12) does he entirely overcome traditional divorce between thought and its object, and in so far as he moves on this idealistic basis it is more than likely that Professor Warbeke is correct that "if true knowledge is teleological the reason for it is to be sought in reality itself" (p. 213). But this is not to lodge a complaint against pragmatism. It is to join hands with pragmatism against a copy theory of knowledge.

And yet on this point of the agreement between true knowledge and reality hinges Professor Warbeke's argument against pragmatism. He fully recognizes James's repudiation of design in the universe at large, but feels that for James there must be the presumption of a teleological aspect to any particular or isolated portion of reality. From that he finds it a simple sum in addition to add to each other the particular portions of reality with their particular purposivenesses into a universe which as such has meaning (*cf.* pp. 213-214). The difficulty seems to lie in a misapprehension of what a pragmatist means by reality, of what he means by knowing, and of how he conceives the relationship between reality and knowing. Professor Warbeke argues that the teleological character of knowledge must be considered as a direct result of the character of reality. He does not conceive the possibility that reality may become purposive by entering into a new relationship, yet pragmatists have consistently asserted that *reality as known* is purposive whereas reality in other respects is indifferent to purpose.

Thus a cloud may be heavy with rain and yet in so far as it

does not factor in any conscious experience it is without meaning. Whatever insues comes, not as meant, but as the result of the mechanical interaction of physical forces. If, however, the cloud is threatening, it is by that token in a specifically functional relationship with some living being. A critic may point out the obvious fact that unknown dangers are as full of evil consequences as known dangers, and that merely knowing does not impart the dangerous character. But precisely here lies the ambiguity. Truly, consequences will follow uniformly from unforeseen as well as from foreseen events. But surely no one would confuse for a moment uniform mechanical sequence with teleological characteristics. The known danger, just in so far as known, functions to determine the attitude by which the danger is met. It may paralyze the beholder by inducing an attitude of suspense in which response is delayed, or it may by assuming a somewhat different character call forth avoidance or even resistance. This means not only that in so far as "reality," such as a storm cloud, is reduced to a sign of danger it has teleological significance, but also that until it is on this level of cognition it is non-teleological, since the purposive control is demonstrably the very essence of knowing.

With this we may contrast the position indicated by Professor Warbeke's criticism: "If, therefore, that knowledge be assumed to have a teleological purpose it must be that any reality (however pluralistically conceived otherwise) provides the basis for this interpretation. And unless some valid distinction is to be made between true-knowledge-of and actual-character-of reality the assumption of a teleology in the one involves the same for the other" (p. 214). He makes his position unmistakable by implied acceptance of Spinoza's dualistic formula that the order and connection of ideas is the same as the order and connection of things. If this gives a correct understanding of his position, then it is Professor Warbeke rather than the pragmatist who faces the dilemma of viewing reality apart from the knowledge relationship as teleological, or else of viewing knowing itself as non-purposive. ETHEL E. SABIN.

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REVIEWS AND ABSTRACTS OF LITERATURE

Human Nature and its Remaking. WILLIAM ERNEST HOCKING. New Haven: Yale University Press. 1918. Pp. xxiv + 434.

The title of this work may easily lead to an erroneous classification by incautious cataloguers. The author's concern is not primarily with social changes, but with the development of the indi-

vidual. The "human nature" that is to be remade is the mass of inherited instincts and capacities; and the "remaking" is education in its largest sense. The fundamental thesis is that education in this sense is not by any means merely a social process; that, on the contrary, it is a dialectical outworking of potentialities belonging to the individual; and that these are of such a nature as to indicate, if not to prove, the contact of the individual with a supernatural power.

With respect to the instincts as such, Professor Hocking takes a position that appears to be both sound and suggestive. This is that instinctive tendencies are present in the higher, as well as in the lower, grades of the nervous hierarchy. Curiosity, for example, is such an instinct. It is dependent upon no special class of physical stimuli; it shows itself in no special set of muscular responses. Stimulus and response are describable only in terms that imply relation to mental activity. Our curiosity is excited, for example, by what is strange, not only as it meets the eye, but as it relates itself to our theories. We not only examine it attentively from the most favorable points of view, but we analyze it reflectively, classify it and explain it. If this view is correct, we make a serious mistake if we try to break up our inheritance of instincts into elements comparable to the sucking-reflex. We are by nature intelligent beings, and as such we have our characteristic native susceptibilities and modes of procedure. Curiosity is a "central instinct." Other central instincts are play, pugnacity, and fear. And, indeed, if we are to believe Professor Hocking, there is at the center of all these instincts one which is the nucleus of all our personal activities whatsoever: the "will to power."

Accordingly, while, as inherited, man's specific instincts are largely disconnected, there is in him a tendency to their intelligent integration, their gradually developing "interpretation" as factors in the totality of will. The consciousness—clear or vague as it may be—of the effectiveness of this central control of impulse Professor Hocking identifies with *conscience*. *Sin* is "the refusal to interpret crude impulse in terms of the individual's most intelligent will to power" (p. 116).

If the individualistic form of these definitions gives the reader pause, he need not fear that he has failed to catch our author's meaning. The individualism is intended. According to Professor Hocking, society, with its customs, institutions, and laws, fails to include and fails to provide for just that which is most precious in the human being. His problem, as he announces it, is "to find some way, in independence of 'society,' to an objectively valid interpretation of the human will. The case of all liberalism, of all reform, of

every criticism and likewise of every defense of any social régime, must rest in the last analysis upon the discovery, or the assumption, of such a 'true' interpretation." "If society . . . is the only or final interpreter of human nature, human nature is helpless against society . . . 'Socialization' is the last word in human development; and society is always right" (p. xi).

An adequate discussion of this position would require much space. Let it suffice to recall attention to the familiar consideration, that society too develops and by no means always knows what will permanently satisfy it. The common opposition is not so much between individual and social rights, as between partial social rights; and a solution, when it is found, consists in a fuller integration of society. The actual society, even on the most extremely socialistic grounds, must still be judged in the light of its potentialities. But, aside from the intrinsic merits of Professor Hocking's position, its consequences for philosophical inquiry must not be altogether overlooked. The philosopher is made an advocate. He is committed to the defense of a cause, the substantiation of a given set of claims; and he is assured that on the success with which this defense is carried through, the highest interests of humanity depend. What could be more unfortunate?

But let us return. Conscience, then, is not to be explained as an expression of the general will. Duty is not subjection to the preferences of others. It is not the pressure of custom, though it is generally inclined to set a value upon custom. Conscience "chooses what satisfies itself, not what satisfies the tribe" (p. 97). It accepts authoritative guidance as an economical supplementation of its own originality; but it may equally reject and oppose authority. Conscience is not even to be described as a will for the real interests of others. It is a well-considered will to power; and, "from such a will, certain ways of treating wives and friends will follow by logical necessity" (p. 122).

Professor Hocking will have nothing to do with a naturalistic theory of sin. The sinful act, according to him, implies that at the time of action the self is in some degree independent of inherited nature, of the environment, and of God (p. 124). Hence it can not be explained: to explain it would be to explain it away. But it is possible to point out conditions that lead to sin. Thus, for example, we must frequently act before deliberation can be complete; effectiveness of action may require compromise with associates; the guidance of authority is needed, yet the easy surrender of private judgment is wrong. In fact, all morality involves the risk of immorality. On the other hand, remorse for sin is one of the principal motives for righteousness. "Since we must win moral life through moral

adventure, we need to add the push of rue to the pull of the ultimate good, in order to find our adequate and complete moral motive" (p. 136).

"Sin," however, may be used to denote not an act, but the status of the agent: the condition of his preferences. The state of sin is, in part at least, a consequence of previous sinful acts; it seems also to be in some measure an original trait of our nature. What its ultimate consequence is, Professor Hocking does not profess to know; but he finds the religious belief that it involves somehow a loss of immortality, altogether reasonable. The longing for immortality he finds to be inseparable from man's self-conscious will to power: it is its "deepest expression" (p. 143). This longing has accordingly been an important factor in the moral uplift of man.

Professor Hocking returns to this theory of the necessary desire for immortality in another connection, in which he takes occasion to comment upon Professor Leuba's statistical investigation of the matter. He writes (p. 373): "One who loves life at all is forever becoming more deeply involved in it; and the self-conscious lover of life can not otherwise than will his own continuous existence. To desire the saving of one's soul in this sense is a necessary desire." And he adds in a footnote: "A fact which is not altered by the results of any questionnaire, especially of a questionnaire circulated among the more sophisticated and self-challenging members of the community." It may be doubted whether this plea is sound. A fact is, of course, presumably unaltered by the results of a questionnaire; but the conclusions of a very summary *a priori* argument may well be called in question in view of such results. Furthermore, if the desire for immortality springs necessarily from self-consciousness, we should expect to find it strongest and most unmistakable in "the more sophisticated and self-challenging" individuals.

It was remarked above that, according to our author, the inevitable course of social progress is, in its general features, given by the dialectic that is implicit in the individual. This is illustrated by the case of pugnacity. Originally it calls for *destruction*; then, since destruction leaves no victim to acknowledge defeat, it is supplanted by *revenge*—a change which "takes place quite in independence of any social restraint upon the fighting impulse" (p. 165)—but, since revenge requires the presence of the adversary, it "squints toward the maintenance of friendliness," and thus leads to *punishment*; which, in discriminating between the actual evil of character and its essential possibilities, leads inevitably to *forgiveness*. In general terms, the process is this: "The transformation of instinct, under experience, consists essentially in the series of hypotheses which a given mind adopts," with respect to the satis-

faction of the complete will; each successive hypothesis being built upon the error of the proceeding one.

It should be distinctly understood that the whole success of Professor Hocking's enterprise turns upon this dialectic. The theory is central and essential to his system. To the present reviewer the mode of thinking is so foreign that sympathetic criticism of it is impossible. I recognize the ingenuity of the argument; but each swift step leaves me behind. Punishment, for example, I believe to be an exercise of authority. So far as my knowledge extends, where there is no authority, there is no punishment. But where does authority appear in the dialectic?

Professor Hocking offers "the individual life, with its natural dialectic, as the standard to which social pressures must conform" (p. 182). The social modeling of the individual is largely good and partly bad. There are many unnatural restraints and cruelties involved; but the conventions are often sound at bottom, even when superficially mistaken. Still, our author insists, it is a fact that individuals are often sacrificed to social needs, and that fixed institutional forms hamper the vital movements. Now society has no right that does not coincide with the interest of the individual—that is, with the conditions of his development. The first postulate of a good society is: "What others wish me to be must be identical with what I myself wish to be" (p. 185). What of other individuals? In a good society competition must be reconciled with common advantage; or, as Professor Hocking's second postulate reads: "Every competitive interest must be so transformed or interpreted as to be non-competitive, or an ingredient in a non-competitive interest" (p. 200). It is the indispensable function of the *state*, that it is the objective condition through which this transformation or interpretation becomes possible. To be sure a perfect society is not possible; and, on the other hand, man's highest activities are concerned with the overcoming of social maladaptations. It is requisite, however, that institutions be plastic. Postulate three accordingly reads: "Whatever in institutions tends at any time to deform human nature shall be freely subject to the force of the dissatisfaction naturally directed to change them" (p. 221). Conservatism can not be too strong—if it be not mistaken. But it may easily be mistaken. Hence a fourth postulate: "Conserving force shall be proportionate to certainty" (p. 225).

But individual life, according to Professor Hocking, not only sets the norm for all social arrangements, both of the more private and personal and of the more public and impersonal sorts. Neither love nor affairs gives full scope for the development and expression of human personality. The public appreciates only a small part of

the man; the family perceives and appreciates more, but gives it wholly insufficient exercise. There are, however, two domains—at once social and more than social—in which “*an adequate and attainable object for the human will to power*” can be found. These are art and religion. “Art is the region which man has created for himself, wherein he can find full scope for unexpressed powers, and yet win an absolute success, in testimony of his own reality” (p. 291). *Religion* aims at even more. Transcending the imagination, it intends to reveal an independently real world, in which all the resources of subconscious capacity—the entire self, in short—can find full and permanent freedom for development.

Here again I fail to follow. Religion has not meant to me what Professor Hocking indicates. And as for art, I can think of no human activity more thoroughly and essentially social, or, for that matter, more constrained by social limitations, than this. When Professor Hocking adds: “The artist has all that the metaphysician can give him, though it be not in conceptual form,” I can only dimly wonder what in the way of definite sense can lie behind the words. I recall similar words in *Abt Vogler*, but there I interpret them as expressing a pardonable enthusiasm—not philosophical truth.

The last part of the book is devoted to an interpretation of certain of the teachings of Jesus, which Professor Hocking conceives to be the fundamental principles of Christianity. The method employed is that which, for good or ill, has become characteristic of those idealistic thinkers who wish, on the one hand to recommend their doctrines to the larger public, and on the other hand to preserve for themselves a certain solidarity with tradition. The exposition is, to say the least, not *bien documentée*. Neither does it smack of higher criticism. It is a very well reasoned and most instructive account of what Professor Hocking would have meant by the teachings in question, had they been his own.

Asceticism, we are told, has had a certain important significance by reason of the emphasis which it has laid upon the genuine and complete satisfaction which religion gives. It is defective, however, because it is abstract—because it merely turns away from the problems set by human nature, instead of facing and solving them. This Christianity professes to do. In its teachings it consistently urges not mere self-denial but dialectic—the losing of life, by which life is gained. Every one of its maxims must be interpreted in this spirit. “Resist not evil,” means, not that pugnacity is to be eliminated, but that it is to be *aufgehoben*—taken up in, and subordinated to, a real love for the enemy. “It is sometimes necessary to induce a quiescent frame of mind,” before the appeal of non-resistance can be effective. Similarly, the identification of lust and adultery means,

not the prohibition of sex-love or of its carnal manifestations, but the transformation of it, by which it becomes a means to the freer and higher life of man and woman. Similarly again, ambition is not destroyed, but glorified. Who has been more ambitious than the great reformers and missionaries, whose aim is to save souls, to educate mankind?

This Christian ambition, as our author proceeds to observe, appears to be, in the individual who entertains it, the height of presumption. How can one pretend to save the world if he himself be not already saved. And yet Christianity calls upon him to save himself by giving himself up to the saving of others. How can Christian humility be reconciled with the impudence of preaching? Only by a divine presence in the preacher—only if it is not he that speaks and strives, but God in him. This is exactly what the Christian claims, and he claims it as a personally verified matter of fact.

From the philosophical standpoint, Professor Hocking declares in conclusion, it can only be said that such a claim is not at all preposterous; that it is in harmony with such general indications as we have of the possibilities of human nature; and that, accordingly, it may well be true.

I must confess that I do not find this conclusion altogether satisfactory; and if my own religion leanings were of the mystic type I believe I should find it even more unsatisfactory. As little as any other perception, is the mystic vision a direct and simple thing. It is not merely a passive experience but an interpretation; and I do not see that this interpretation lies outside the field of philosophy. If philosophy is intrinsically incapable of guaranteeing the interpretation, mysticism is naught but vanity.

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Some Suggestions in Ethics. BERNARD BOSANQUET. London: Macmillan & Co. 1918. Pp. vii + 248.

The title of this little book is well chosen. Dr. Bosanquet has not attempted here to give us a systematic treatment of ethical theory, but to consider merely a few more or less disconnected questions relating to both theory and practise which apparently have at times puzzled him, and which he thinks may be puzzling others. Nor is there anything dogmatic in his manner of handling these questions. The reader has the feeling that he is not so much reading a book as being permitted to listen while Dr. Bosanquet thinks aloud. Such a method of presentation has obvious merits and equally obvious disadvantages. It insures a sincere and direct

treatment of problems all of which the author feels to be vital. On the other hand, not many readers will find their own ethical uncertainties exactly correspondent to Dr. Bosanquet's, nor will his somewhat tortuous treatment of many of his problems lead his readers into all the light that they might wish for.

The book, as has been said, is short; but it would take a long review to follow the author through the meandering course of his nine chapters, in which rather more than nine problems are considered and upwards of ninety-nine "suggestions" are offered. The two chapters which come nearest to the heart of ethical theory are the second and third, in which the collective as opposed to the individualist view of the "social good" is upheld, and the nature of value as an impersonal category rather than as a datum of sense-perception is discussed. "What is good or has value," the author defines as that which possesses "the general character of what a human being wants." This definition is skilfully formulated so as to recognize the relation of value to human wants, and yet not to limit it to the object of immediate and present desire. A more original chapter is number VI, "How is One to Know What to Do?" The most important part of this chapter is the section in which the author discusses the question how far efficiency and practical success in the carrying out of a good motive are to be considered in assessing the moral goodness of the person or the act involved. It is a little surprising to find one of Dr. Bosanquet's idealistic tendencies coming so near as he does to the position of Bentham and Mill. Not that he by any means adopts their views *in toto*; but he protests as they do against the goodness of mere "motives," and points out with great keenness the part which efficiency plays in the total moral act. "An attempt at a good which succeeds and one which fails are not, as a rule and in principle, equally good in will. The former is good all through; the latter is good at core, but the core has not grown an outside to match it. . . . Sometimes, I confess, I think it nothing less than a crying shame and scandal that our morality has been taught to take out the motive from an act and judge it alone, as if moral obligation stopped at laudable desires, and did not extend to making one's will adequate to the situation. 'To respond adequately to the situation' is not a bad formula if you want to put the rules of moral guidance into six words." This emphasis upon actual efficiency is supplemented in the last chapter by a similar emphasis on the importance of knowledge and intelligence. Dr. Bosanquet feels that "we are not hard enough on stupidity." Of course stupidity as the opposite of cleverness is hardly open to moral disapproval; but there is a kind of stupidity,

common enough indeed, which has in it a genuinely immoral quality. This kind of stupidity ought to be described as "unresponsiveness to values," or ignorance of "what a life and mind must be, at the minimum, in order to have value at all as a life and mind." "It is a blindness to moral values either in the narrower sense of morality or in that wider sense for which all values are 'moral.' But its intellectual side is also prominent and inevitable. You can not be blind to values without a prevailing ignorance and distortion in your ideas concerning facts, objects, and truths."

Insistence such as this upon the moral duty of being intelligent is indeed timely. Too long has ethical theory dwelt upon the exclusive value of a good heart. Something needed to be said about the truly moral nature of right thinking.

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Figuri e studi di storia della filosofia. E. TROILO. Roma: "L'Universelle" Imprimerie Polyglotte. 1918. Pp. 324.

Signor Troilo's volume of essays reveals a mind impatient of the drawing-room popularity achieved by many varieties of so-called idealistic and anti-intellectual "philosophy" to-day, seeking to recall his countrymen from the pursuit of German idealism or Bergsonian intuition to the positivism which can alone serve as the intellectual basis of a true ethical idealism. He believes that philosophy is essentially an imaginative construction of the human spirit, like poetry; but he is convinced that such a philosophy of human values can not be erected without a careful and dispassionate consideration of the facts of existence. The present volume is an example of what the positivistic Neokantianism of Tocco and Barzellotti, Troilo's masters, can accomplish at its very best. There are essays upon Bergson and William James, the latter an impartial appreciation; upon Vailati, Tocco, Giuseppe Sergi, Giorgio Politeo, and Giacomo Barzellotti, all exceedingly interesting sketches of figures far too little known outside of Italy; and an estimation of Helvetius' service to science and philosophy. But the reader will be most interested in the three concluding essays on "The Concept of the History of Philosophy," "The History of Philosophy and the History of Science," and "History and Utopia." In these illuminating studies Signor Troilo is seeking to free the history of philosophy from its bondage to metaphysics and epistemology, and make it a real history of the progress of the human spirit and imagination. Utopias are of the essence of philosophy and life; for while history is a world that passes into a dream, Utopia is a dream that becomes a world. It matters not that it will

never be realized in time or place; for its realization is in men as ethical truth and function. Without a vision of the perfect city to spur him on, man would not be man.

JOHN H. RANDALL, JR.

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JOURNALS AND NEW BOOKS

THE AMERICAN JOURNAL OF PSYCHOLOGY: April, 1919.
In Memoriam: John Wallace Baird. A Study of Tonal Attributes (pp. 121-164): GILBERT J. RICH. — The pure vowels do not occur at the same point for all observers nor do they lie an octave apart. Judgments of vocality are made upon a perceptual and not an attributive basis. Judgments of pitch are made upon an attributive basis. Previous experiments establishing the attributive status of volume, and showing that it follows Weber's Law, have been verified with pure tones. *Some Forms of Natural Training to Which Certain Birds are Subjected* (pp. 165-172): P. F. SWINDLE. — Certain interesting regularities in the behavior of birds, especially carnivorous ones, are explained. *Analysis of Nesting Activities* (pp. 173-186): P. F. SWINDLE. — Relation between bodily activity and complexity of nest, relative utility of the various movements, theoretical conception of nest building, utility of group dependent upon its proper temporal position, application to nest-building of birds, nest building of the *Cariama*, simple and multiple nests, selection of the building place, etc., are discussed. *The Peristaltic-Like Nature of Organic Responses* (pp. 187-210): P. F. SWINDLE. — The initial element of the innately associated series of elements of the responses of long duration conditions or induces its qualitatively most similar element; this in turn induces its most similar element which has not occurred immediately before, and so on until the qualitatively most dissimilar element to the initial one is induced. *Some Relations between the War and Psychology* (p. 211-224): G. STANLEY HALL. — The psychological forces which play the chief rôle in wars are discussed. Only when we understand and learn how to control them can the world be safe for peace. *Duration, Energy and Extent of Reaction Movements—Simple and Flying Reactions* (pp. 224-236): FRANK ANGELL. — An investigation in continuation of the "Preliminary Note" on reaction times in an earlier volume. *Book Review. Book Notes.*

Crawford, W. J. *Experiments in Psychical Science: Levitation, Contact, and the Direct Voice.* New York: E. P. Dutton & Co. 1919. Pp. vi + 201. \$2.00.

Jerusalem, William. *Problems of the Secondary Teacher*. Translated by Charles F. Sanders. Boston: Richard G. Badger. 1918. Pp. 253. \$1.75.

Link, Henry C. *Employment Psychology: the application of scientific methods to the selection, training and grading of employees*. New York: The Macmillan Co. 1919. Pp. xii + 440. \$2.50.

NOTES AND NEWS

HAECKEL

IN the death of Ernst Haeckel the world loses the last of those great Victorians for whom Darwinian evolution was not merely a biological hypothesis, but the foundation of a new philosophy and a new religion. Haeckel was the Spencer of Germany; and like Spencer he undertook to preach the new gospel of evolution to the people at large. Though possessed of a vastly greater knowledge of the science of zoology than his English prototype, he was inferior to him in philosophic power, and especially in clarity and tolerance.

The central thought in Haeckel's philosophy is what he called monism. This monism of his was a rather crude development of the monism of Spinoza. Like the greater doctrine, it opposed dualism both in the individual and in the cosmos. Man's mind is an inseparable aspect of his body and shares the composite and perishable character: while, in the world at large, whatever may be called divine or spiritual is an inseparable aspect of the eternal and infinite system of matter and energy.

On this monistic psychology and cosmology Haeckel founds his monistic theories of ethics and education. He rejects what he regards as the other-worldliness and asceticism of Christian ethics and attacks these tendencies with the harshest and most bitter invective. Yet for all his anti-clericalism there is nothing of the Nietzschean attempt to subordinate right to might, and to make ideals secondary to a "will to power." Haeckel believed with Spencer that the Golden Rule expressed adequately the rival claims of egoism and altruism; and, also like Spencer, he believed that the new evolutionary science was capable of giving both a psychological explanation and a logical sanction of the moral sense.

In his monistic theory of education Haeckel advocated a far more extensive and intensive teaching of natural science than that which exists. Like many gentler reformers he mourned the fact that the incredible advances in our knowledge of physical nature had failed to react upon human culture. And it is interesting to find him in-

veighing against the double standard of morals which permits governments to follow a policy of unbridled egoism that is in direct contradiction to the Christian altruism which is preached as the rule of life for individuals.

That Haeckel was swept into the vortex of hate and criminal madness that engulfed so many of the German professors at the outbreak of the war, should not blind us to the fact that he was a great man. He preached with harshness and sometimes with amazing crudity and unfairness, yet always frankly and bravely, the same principles of monistic materialism that are believed by the softer and more tactful majority of his scientific colleagues. He was as lacking in technical philosophic learning and subtlety as in graces of style. But these defects were offset in large measure by his energy and sincerity, and by a kind of clumsy clearness due largely to iteration. Haeckel wrote not for philosophers, but roughly for plain and rough minds. Multitudes of men read him, understood what they read and were convinced of its truth. He was a power in his generation; and more for good than evil.

W. P. MONTAGUE.

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PROFESSOR A. S. PRINGLE-PATTISON has resigned from the University of Edinburgh, where he has held the chair of Logic and Metaphysics since 1891.

PROFESSOR NORMAN KEMP SMITH, since 1913 McCosh professor of philosophy at Princeton, has been called to the professorship of philosophy in the University of Edinburgh. During his stay here he has won, both by his personality and his scholarly attainments, a distinguished place among American philosophers. It is with very keen regret that we part with him, but he goes to his new position supported by the good wishes of many loyal friends.

PROFESSOR A. E. DAVIES, professor of philosophy at the Ohio State University, has been appointed head of the department of philosophy and psychology at Colorado College.

DR. ARTHUR M. JORDAN, who has just completed two years of research work at Columbia University, will return to the University of Arkansas this fall as head of the department of psychology.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE FUNCTION OF PHILOSOPHY IN RECONSTRUCTION.¹

LIKE other things human philosophy has its moods, and it can hardly be impertinent to wonder what is now the mood among us philosophers. Are we entering upon this discussion with expectation and confidence of really doing something or are we simply complying formally with an obvious duty, joining the large crowd of those who are bent on going through the motions of offering their services and even of doing something but hardly looking forward to accomplishing anything really important? The latter attitude, of course, will be generally ascribed to us, if we get any attention at all, since the public is not in the habit of depending on philosophers for real service. In fact for saying to our strenuous and even panicky times, as now in so many words we must seem to be saying: "Perhaps so impractical a thing, so dull and futile a thing as philosophy can be of some help," we are much more likely to be laughed at than applauded. Lawyers, engineers, statesmen, artists, even clergymen would be thought to meet together for some purpose, but we philosophers, stupid and impractical theorizers, must be well satisfied if the times which willingly or unwillingly have given us birth only feel some parental affection for us, mingling this with their laughter. How can we expect anything more? How can we at this critical time even take ourselves quite seriously?

A story, heard some time ago and affecting in itself as well as appropriate at this point, insists on coming to my mind. One evening two worried parents, whose means even in the good old times were more moderate than their bills, were holding a first-of-the-month conference and had got themselves into a well-developed domestic financial panic. Worry overcoming discretion, they spoke so loudly that they were heard upstairs. "Mother, I can't sleep," came from the hall-bedroom. Then, a little later: "Father, perhaps I could pay one of the littlest bills." Laughter, mingled with parental affection, followed; but also somehow the panic came abruptly to an end. Families do not live by a bank account alone.

¹ Read, with generous omissions as one paper among several on the same subject, at the meeting of the Western Philosophical Association, Iowa City, April 18-19, 1919.

Nor, indeed, are strenuous and panicky times relieved only by ordinary material readjustments or for that matter by the conventional spiritual appeals or revivals. All the recognized pillars of society, it is true, are needed and are sure to be called upon for whatever support they can give; but there is need of that helpless and impractical child of such times, philosophy, whether as an attitude of mind and will or as an assertion of "mere theory." There is this need simply because in such times the child has unusual power.

Wherein lies the unusual power of philosophy? Several years ago, if I may be allowed the reference, I read a paper; "The Doctrinaire in Time of Crisis," before this association.² Everybody works, I ventured to say somewhat after Plato, but the philosopher; the philosopher rules. Again and again in history the dull, helpless philosopher, the idle doctrinaire, has shown, as one writer, whom I quote perhaps too often, has put it, "a terrific strength to shape the destinies of men." The military leader and the practical statesman have both had to yield to him and his "weakness." His very isms have proved mightier than armies or than common and practical affairs of any kind.

But still the question: Whence comes the ruling power of such apparent weakness? It is, I hear some one say piously, mysteriously, the gift of the spirit; a spiritual and wonder-working strength; not natural, not physical. Oh the magic power of the Word! So be it. Only I would amend by saying: Spiritual, yes; but not merely spiritual or rather all the more truly spiritual for being also natural or physical. Thus the somehow masterful doctrinaire deals or in his theorizing always may deal with really great ideas, and a really great idea, the more general and impractical it be the better, always makes the conventional methods and devices of men, the accepted machinery and institutions, all the various accredited organizations, the customs and the positive laws, seem small and meager. These are formal and mediate, local and temporal, while it is vital and in some sense immediate, eternal and world wide. It reveals them as mere methods and devices. It disturbs, too, and weakens or destroys the partisanship, which necessarily affects all life under constraint of accepted forms and methods and which is always an obstacle to any important change; and then, weakening the existing partisanship as well as discrediting the accredited formal ways, it stirs life beneath the surface, appealing deeply to common human nature, and marshalls to its support and enaction the basic and irresistible forces of life, the great primitive motives, the passions and instincts, the "terrific strength" of which hardly calls for comment.

² See *International Journal of Ethics*, Vol. XXVI., No. 4, 1916.

So by the weak doctrinaire, by the dull philosopher, without formal and visible artifice of any kind, without lifting of hand, a change may be brought about in human history that is comparable only with such physical changes as earthquakes or tropical tornadoes. Few have seemed to realize that to think abstractly may be to release the very elements. A great idea, comprehensive, vital, superior to any organization and its partisanship, stronger than any human device, knows no executive forces save those of nature herself. It can be no mere accident, but the logic of fact, that contemporary with abstract idealism there is always a dogmatic materialism. Only so could the essential harmony of things be preserved.

Evidently, thanks to the great forces that do our work, we abstract thinkers may really enjoy both the affection and—quite in our own way!—any laughter which our parental times may give us. Indeed, instead of not taking ourselves seriously, while amused over this sudden change in our fortunes, we may very properly wonder how we ever dare pursue our mere theorizing, when at any time, if we have any ability, if any of us should happen to acquire a great vital idea and prove himself able to give clear utterances of it, the theorizing might become not merely dull but—quaintly put—“significantly dull.” Has not somebody said that real philosophy simply always must mean important changes? As thinkers, then, in a sense we are children; impractical; awkward with tools; unfit for office; *gauche* in affairs; but also as thinkers we are or at least we have chance of being very powerful, since through our ideas and isms we may release basic forces of the world. We are thus strong men, not mere children. Pythagoras, we may delight now to recall, both heard the music of the spheres and hardly needed even to whisper to make the most savage of animals do his bidding!

Historical evidence of the power of philosophy can hardly be necessary; but the myths about Pythagoras are hardly conclusive and with philosophy now offering its services to these strenuous times it may be well, however unnecessary, for us to recall from actual history how in the critical days of the passing of the ancient civilizations philosophy took no small part in the making of imperial Rome. Thus the integrity and solidarity of the Greek civilization was failing at the time of the rise of the Socratic philosophy, Greek life from being provincial and patriotic having turned cosmopolitan and individualistic, the glory of the age of Pericles just preceding having been for Greece not that of a sunrise but rather that of a sunset; and the Socratic philosophy, with its abstractions and universals, with its vision, with all the various ideas and the isms that more or less directly took rise or took new inspiration from it during the centuries following, giving men both insight and strength of will and power of endurance, greatly helped the transition from the

old order to the new known to us as Rome and Christianity. Creative, too, not merely enduring, was that Socratic philosophy. That the Greek people should have produced so good a Roman as Socrates, so good a Catholic as Plato and, as I am tempted to add, so good a Protestant as Aristotle must surely suggest the power of that philosophy. Again, did not the Roman leaders seek to reproduce imperially, to universalize, the Greek city-state? Did not the great Augustine hark back to Plato? That Socratic philosophy, then, saw and spoke and, while the story is far from complete with this telling of it, there being among other episodes a contemporary materialism with the idealism, the elements known in good time as Christian Rome executed. It has often been said that in those days men gave up, turning philosophical only in the sense of contemplative and patient, but this is neither appreciative nor true. Just then human nature was at one of the great heights of its achievement in history.

We are certainly not in the habit of denying human action and achievement when science and law and art are the attitudes and activities of mind under which men make use of the powers of the world of their experience, and of course with the evidence of the war so near at hand we will not be making any such denial now. Yet these bring to man's use the values and powers of nature only under some prejudice or under some artifice, under some definite and reducing and constraining limitation. These in application are institutional. Why, then, when man turns to philosophy, becoming in his consciousness superior to institution or mechanism, having regard to the vital rather than to the formal, to the real rather than to the artificial, and so—is his activity anything less than this?—making use of the free unbounded life and force of nature, why do we conclude that he himself is no longer doing anything? For action and achievement must man, who primarily is in and of the real life of nature, always depend on artifice, on so-called practical applications? Really philosophy wields a weapon that is mightier than any institution or any device of system or mechanism. We saw just this when above we were able to say that the truly great and vital idea, being superior to formal organization and the inevitable partisanship of formal organization, could know no executive agency save that of the irresistible elements and also we have observed how philosophy, although occupying an invisible throne, was more effective in the making of Rome than the militarism of all the Cæsars. It may be that the special business of philosophy is to make new epochs, while those other things at one point and another, in one stage and another, merely maintain old ones.

Philosophy makes new epochs! It is the special mental action, the thought and will, of a time of transition, when achievement

must be free from the mere bondage of institution or any formal device, and when instinct, passion, natural force are, for good and for ill, loose and to the fore; and, having said this, I am going now to add, what many of us are certainly feeling, that Christendom must be nearing if already it has not quite reached its era of great philosophy. If I, if we be right in this, nothing could be more to the point for the present discussion, especially with the terrific strength of philosophy held in mind. Christendom must be very close to its era of philosophy, among other reasons, including the world-wide unrest and the violence of passion and instinct, because the war has brought to an end the era of science and of science's calculating rationalism. Henceforth, although of course science and its applications will be important or, while differently valued, may be said even to gain in importance, the purely scientific spirit, exalting rationalism and efficiency, can not be the predominant spirit. Pure reason and cold efficiency, after all, the distilled spirit of formalism and institutionalism, have been outgrown. Man now feels, in short, the need of getting nearer reality and so of being broader-minded, more candid and more vitally objective, than even reason and science have made him. His boasted scientific objectivism heretofore has been more formal than vital, more phenomenalist than realistic.

This feeling that in the history of Christendom philosophy is at last coming to its own, reaching its era of predominance, will be understood better by others, as well as by ourselves, if it be remembered how up to the present time philosophy has been a hand-maid, first of theology, *ancilla theologiæ*, next of mathematics and mechanics, then of the natural or biological sciences, and finally, in these latter days, of psychology, anthropology, sociology, and if, this long but educating and advancing service remembered, the significance of the striking, however graduated, change in subject-matter from theology dealing with a world and the powers of a world quite apart from this to psychology dealing with a creature organic to this be fully appreciated. Subject to theology and the church, philosophy had little opportunity of self-expression; subject to psychology, it has shown and it has had little to restrain it. Moreover, as must be recognized, the training of that service, slowly moving towards freedom, has certainly constituted a most valuable and noteworthy preparation for the present or momentarily pending responsibility.

But, further, for understanding of the new era of philosophy, besides having regard to philosophy's centuries of service and training, we should consider also the earlier times, the earlier eras, in a more direct and independent way. Thus, in historical order,

law and art and science have preceded philosophy in the progress of Christendom, each in its turn enjoying a period of predominance.

Do I hear prompt and loud protests? At this writing, I being the writer, is philosophy charged even by philosophers with very obviously suffering from actual or at least incipient megalomania? How can we thus relegate our noble peers to the class of the "have beens"? Certainly the lawyers or the law-makers, fearing for their precedence and their prerogative and privilege, will cry out, nay already in certain quarters are crying out very noticeably at the new danger, the danger of too much philosophy, threatening their prestige. In behalf of art, too, somebody will insist that with the law art is still a most estimable, important and influential contemporary, besides being of course a thing of beauty and "universal;" and science, to any one not somehow prejudiced or seriously deceived, is surely and clearly, thanks verily to the war, only just coming into its period of greatest prosperity and usefulness.

I have been flagrantly misunderstood, *mea forsan culpa*. My Latin for the old-time jurists! Beyond any peradventure no era, early or late, in all history can ever be without any of the great cultural disciplines or interests and the era now dawning or here said to be dawning will certainly have and indeed appears already to be getting a new science, a new art, a new jurisprudence. In point of fact nothing can be more inspiring than this universal newism, or neo-ism, of the day, than the splendid, if also often very amusing, "I told you so!" which has been heard from every nook and viewpoint of human interest. Witness, for the most pertinent example, this very occasion, when philosophy would have its own hearing. But, truly as all the great cultural interests do belong to each and every era and especially to the era now dawning, each now feeling the pressing call to duty and being liable to draft if it fail to volunteer, there is for each at every time a special part in the always divided labor of civilization and at some particular time the prominent and commanding part. Thus, as to philosophy, for many centuries as has been remarked this has been in service; but now, fitted as it is in its essential spirit and character for leadership in a later rather than an earlier period of civilization, it is to take the lead. The philosophical spirit, superseding the scientific, is to prevail, affecting all phases and departments of life.

To characterize briefly and clearly those other and earlier eras of Christendom's history is not at all easy and at best any characterization should be taken with due salt. Naturally the service record of philosophy, already outlined, affords some indication of them. Also the fact that in general institutionalism has shown a gradually reduced rigor and tyranny, a progressive rationalization and naturali-

zation, the institutional life becoming more and more conventional and giving way to individualism, is illuminating. But now in a more direct and more specific way the earlier eras may be described as follows:

1. *The era of positive law*; that is, of institution-building, of formal, visible political and social organization and superficial world-conquest, when, as by no means an unimportant circumstance, civilization had a geographical frontier and life accordingly seemed more beyond than here and the institution sought strength for itself and majesty and authority for its law in supernaturalism;—

2. *The era of art*; the art notably of the Renaissance, era of the institution's earlier naturalization and acclimatization, the once dogmatic and supernatural institution actually intriguing with the vital and natural, and offensively and defensively turning patron of things human and natural; Christendom's civilization becoming thus more candid towards the present world; and—

3. *The era of science*; of candor to the point of unbiassed generalization or objective rationalization, as in the scientific principles of *universal* causation or of the uniformity of *all* nature; the formerly assertive and arbitrary institution becoming at last only a means to an end, an adaptable instrument and constantly measured utility instead of a fixed object of implicit devotion, the source of finally authoritative law being transferred from the visible institution to an orderly and mechanical nature and the narrow and dogmatic and supernaturalistic legalism of the first era giving place to a standpoint of general and calculable reasonableness, even to a sort of mathematicalism.

Such, then, seem to have been the great eras of Christendom's past, eras of attitude and ideal if not of achievement, three in number. The fourth, era of philosophy, preparing for some time, is that which Christendom seems now to be entering. The progression of dogmatisms from theology through mathematics and mechanics to biology and psychology having now come to an end, and life as never before feeling and asserting its freedom from traditional form, philosophy is to take the lead, succeeding to the position which in turn has been effectively occupied—witness the progress which the history shows—by positive law and institutional art and objective but methodical science. Only, let me say at once, lest I be still misunderstood, I am now meaning to give the leadership primarily to the spirit of philosophy rather than to professional philosophy or the teachers of philosophy. To the profession, it is true, the thinkers and the teachers, with the spirit abroad and in command, is come a new opportunity, a new responsibility. Freed from centuries of service—or

should we now say of mingled service and contention?—the philosophical profession, outdoing the scientists in candor and real objectivism, in vital accuracy and realism, must and will attain new vision and formulate new theories; proving, as we may hope and believe, the advantage of its long training and wisely graded enlightenment. But, aside from the great chance thus coming to the profession, especially to the younger generation, we here, who are of the faith, should keep clearly in mind in the first place that laymen may quite outrun us professionals, winning the laurels, since just this sort of thing has often happened; and, in the second place, helping to make the first thing quite possible, that the spirit of philosophy, as never before permeating all parts of life and all classes of society from the proletariat up—or down!—is really what is to make the new era, including the new law, the new art and the new science as well as the new philosophy. And do but think for a moment of what philosophy may be able to do with the background of tradition which it now has, not for its constraint but at its command!

But what indeed is the spirit, the essential spirit, of philosophy? Before this body the question may seem an idle one, especially after all that has been said here. Yet, under all the circumstances, even at risk of repetitions, we may remind ourselves of our birthright; among other reasons because liberation of the spirit of philosophy means unusual dangers as well as unusual opportunities. The phrase, the function of philosophy in reconstruction, is a suggestive one, however redundant; suggestive and ominous. Philosophy pre-eminently is reconstruction and in the sense emphatically of something more than restoration. It is evolutionary when not revolutionary. Again, it wields those terrifically strong forces; forces so strong that only the long training, to which I have constantly to refer, can insure even a reasonable hope of safety, to say nothing of progress, for civilization. As regards the question, then, the essential spirit of philosophy may be expressed in one word, realism; or in two words, only focussing suggestions already made and analyzing the realism, principle—the Platonic idea!—and the elements, meaning ideality and force, original force; say, too, vision and vitality, hope and hunger, or spirituality and reality. An era of philosophy is a time at once, ideally, of resort to first principles and values and, materially, of the release of the elements.

Intellectually, of course, the common history of philosophy distinctly shows this in the perennial issue of idealism and materialism among the philosophers, who have never lost sight of this general issue, whatever the time or condition or color of their servitude; but to-day, this being characteristically the era of philosophy, to-day the issue is in a special sense and with a special measure of directness

more than an intellectual one, having become vital and quite overt in the conduct of affairs; an issue, not merely of theoretical idealism and abstract materialism, but of the established order of society now keenly feeling itself between the two fires of ideality and force; between the attacks, for example, of the leisured thinkers or doctrinaires awake to a new freedom and power and the attacks of the impassioned workers, the proletariat, stirred figuratively as well as literally with a great hunger; both the thinkers and the workers, although so far apart in attitude and method, demanding a positive and progressive reconstruction.

You now see, I trust, what among some other things I have been trying to do in my contribution to this discussion. The subject, chosen by the Executive Committee, was certainly couched in no idle phrase; but I have been trying to give it the fullest possible meaning, making it seem timely and interesting, dramatically interesting, even beyond what its originators may have conceived. This is evidently Christendom's era of philosophy, as it is an era, a great era, of vital reconstruction, and that phrase, the "function of philosophy in reconstruction," suggests accordingly our present intellectual freedom in this new era feeling its great responsibility, our present social and political order seriously affected with instability and division and foreseeing certain change, and a release of passion and instinct that has made violence one of the time's most conspicuous facts. Out of these things the reconstruction is to come and whether it come cataclysmically and with great loss and delay or not must depend on which of the two agencies of change, intelligence or violence, is first to get the better of the frightened and resisting established order.

Here, then, is the call to philosophy. True to its best spirit, philosophy must stand for enlightened, generous and sympathetic thinking; for thinking informed indeed by science but made at once objective and above all realistic by imagination; for thinking, in short, that has some vitality, some feeling of creation, some movement to real adventure and new performance, some practise of evolution. Only in the atmosphere of such thinking, honest as courageous, speculative, experimental, can the existing system or order of life be anything more than a center for internal divisions and bitterness and an object of violent attack and eventual overthrow from outside. Institutional obstinacy, Toryism, mere standpat conservatism is the great danger of the time, not outranked even by Bolshevik violence or visionary idealism, and safety, to say no more, can come only by the conservatism yielding something, perhaps a good deal. Manifestly it would much better yield through the influences of candor and generous thinking, these begetting a genuine and

constructive purpose, than through the compulsion of destructive violence.

The ideality and the force, which the times show so assertive, as it were, are now seeking an alliance and the whole question seems to be whether their alliance is to be consummated with or without benefit of institutional mediation. Will the institutional life, the existing order, stand the test? Will it yield to the philosophical spirit, the great spirit of honesty, breadth, impartiality, courage, realism, and so make itself, not nobly stable nor artfully adorned nor any longer just practically efficient, but effectively progressive, acquiring as it would at once ideality and vitality, new purpose and new blood? Law gives stability; art supports by invoking nature; science makes naturally and practically efficient; but philosophy, midst hope and fear, midst opportunity and danger, sets life free, and the present is the era of philosophy.

Some one, finally, may ask: Aside from all that has been said about the day's need of generous and vitally objective thinking, of institutional candor and compliance, of force allied with and guided by enlightened purpose, and about the great spirit of philosophy, aside from all this, what for professional philosophers is to be the now timely philosophy, the day's ism? This question, I suppose, had to come, although I have been disposed to head it off by dwelling on the general philosophical spirit and assigning professional or technical philosophy to a secondary place. Moreover I have had doubts of my competence to give answer. The question asked, of course I shall now make a venture; perhaps outrunning the more timid angels, yet myself getting some real confidence from certain signs of the times in general tendencies of the times and in the tendencies of technical philosophy.

The times do seem to be getting what both present need, practical or intellectual, and past history would lead one to expect. Thus the timely philosophy, I suggest, must be and in good measure seems already to be realism; not a scientific realism, that can be only phenomenalism, but real realism; under certain important qualifications an empirical and even a sensuous realism. At risk of easy and serious misunderstanding I have said "even a sensuous realism," for I have felt the need of special emphasis and punctuation of the realism. The important qualifications will follow in due course.

History, which unfortunately for their own best understanding has often been neglected when not actually scorned by the contemporary realists, and present need and evidence both demand such a philosophy. The day's thinking must be dominated by a vital realism and even the senses must carry reality. The senses must be guided but may no longer be suppressed by the reason, the abstract and

formal reason, faculty rather of institutional life than of nature and reality, of the abstract rather than of the concrete. Formal reason and institution are for nature, not nature for them. The day's demand is for nature and the concrete and the sensuously real answers the demand unequivocally.

There is, however, sensuous realism and there is sensuous realism, and judgment must be withheld until my meaning has been made clearer. Naïve realism, so-called, is quite sensuous, although it relies on intuition, immediate spiritual or rational insight, as well as on sensation; its naïveté, in other words, not being single-minded, its implied metaphysics being dualistic: but this is no time either for such naïveté or for such metaphysics. A more timely realism is Nietzsche's, which while often very offensive in its manner certainly in effect is a sensuous realism and has at least this to its credit, that it is anything but naïve. Also the pious and conventional old lady who lamented that the soldiers at the front did not believe in God and to whom the war-worn and much decorated colonel, just back from the trenches, exclaimed: "Believe in God, madam? I fancy you do not know what belief in God is. They have believed in God like hell!" was plainly, albeit too rudely, in the presence of a sensuous realism which was far from naïve. The day's realism, of course, has no need of being offensive or profane, but naïve it must not be; it must have the same nuance, the same subtle intimation, as Nietzsche's or the colonel's. Consider, again, even the peculiar and very familiar realism of most if not all religion, evident in so many of the old hymns, sensuous "to a degree," but in its intent not by any means literal or naïve. The sensuous realism of the medieval church had its many crudities, incident to the untutored times, but it was distinctly a subtle, mediate realism, not naïve. The realism of to-day, then, while candidly sensuous, may or rather must also be a mediate realism and so much the more mediate and less crude, thanks to Christendom's education from theology to psychology, for being sensuous. To espouse an immediate sensuous realism would be, first, to betray the past and, second, to recognize if not also sanction brutish violence.

Emphatically sensation can not be to-day what it was for the medieval church; for the English School of the seventeenth century, although Berkeley among the others did much to enhance its mediative value; or even for the psychological thinkers of the last century, say, from Lotze on. To-day the spiritual and the rational, with all of reality that these carry, even live and move and have their being in the sensuous and, although men for a time said that only the spiritual is real, then that the rational is real, and are saying now that the real is the sensible, and although this progression may at first seem to mean loss or degradation of reality, there is in

fact great gain, not loss. Alas that so many, perhaps unwittingly confusing the sensuous with the sensual, will jump to the conclusion, in spite of all my precautions, that a sensuous realism can mean only materialism and brutishness, and that so many others, while more discriminating and not shocked morally, will understand only a return to a mere sensationalism, when such materialism or sensationalism is the very last thing intended. A question, put in all reverence: Was loss of reality or gain the meaning of the Christian doctrine of the Word Incarnate, of the spirit made flesh? That doctrine was in its time a great dogma and, as history would seem to suggest, it is proving to have been also a great prophesy. The sensible world to-day is not the raw, discrete mass, irrational and unspiritual, it once appeared or now appears in retrospect. In some manner superrational or quite vitally rather than formally rational it may be, but irrational it is not. In time past doubt of the senses led to a dogmatism of the reason, the formal reason, but a certain doubt of the reason has since brought a return to the senses, although the senses must now be in more than an idle figure the mind's or the soul's eye or ear. Culminating revelation of a long history, object of an ever enlarging and deepening perception, the sensible world, now taken as the real world, is real with the profound realism of centuries. It is quite as quick with things spiritual as with things physical, and walking in it as in a forest and hearing a strange rustling one may indeed fear a beast but actually meet a God.

Mediate, I say again, implying rational and spiritual subtlety or finesse, must be the day's sensuous realism. Perhaps not unnaturally some have thought that the sensuous realism to which recent tendencies in life and thought have lead them must mean the traditional naïveté and directness of sensation. Mature experience may often look like simplicity, age like childhood. To confuse the two, however, to fail to get beneath the surface, is seriously to miss the point historically, psychologically, metaphysically. Once upon a time a child mistook a rapidly moving wheel for a wheel at rest! Mediate, subtle, sophisticated; "critical," as a colleague has called it; envisioned, as I would have it called also, thus emphasizing the spiritual values as well as his intellectual values and correcting his scientifiism; mediate even to the point of virtual dualism, must be the present, empirical, sensuous realism.

Even to the point of dualism! The realest, most vital kind of dualism too! Moreover it is here that I shall outrun and possibly offend irretrievably the contemporary realists. Yet a mediate realism is an implied if not open dualism, just as dualism, from the standpoint of either of its two factors, is virtually a mediate realism. Not that I now mean or for a moment would put up with a dogmatic

metaphysical dualism. Such a dualism, characteristically medieval, as commonly we read history, in point of fact became "metaphysical" only as it was outgrown. In its own time and origin it was quite empirical and even in a sense immediate. Somehow there can not be the same objection to an immediate dualism that there is necessarily to an immediate realism sensuous or intuitional. The dualism corrects and removes the danger of possible error.

A sensuous realism, then, but qualified as a mediate realism and again as an immediate dualism is what I am disposed to regard as the logical philosophy of the present era. What an immediate dualism is may not yet be clear. So let me, as a last word, try to explain. Only yesterday the essentially philosophical issue of universal principle and primary elements, the ideal and the natural and vital, was still somewhat hidden and protected by the positive organization and structure of life; in affairs, by definite custom and institution; in theory, by certain technical isms having in spite of differences their common heritage of standpoint and method; and as regards its meaning, its eventual meaning, that issue was still confused by the persistent associations of former times: but to-day, the spirit of philosophy being set free, the protective covering is removed or at least is becoming very thin and unsubstantial and a virtually nude life is now immediately present or now, to be bold with the metaphor, stands before experience.

While custom and institution, common standpoint and method served as actual cover and protection, the issue of the ideal and the vital naturally had a certain abstract character, being more intellectual or more emotional than practical; and an apparent dualism, numerical if not real, abstractly metaphysical, was the result. Thus the ideal and the vital seemed two distinct and separate things, made so by the positive covering, by the institutional confinement. A clothed life, a life under constraint of determined ways, always has both a soul and a body, an abstract meaning or value and an equally abstract material basis, neither intimate with the other, although associated; both challenging actual experience, but from outside. But, the covering and protection removed or at least, as now, no longer very effective, those two, the ideal and the vital, the spiritual and the material, are become actual in experience, standing boldly before it, and, what is even more, are themselves come to be so mingled as to be each immanent in the other; two, then, no longer, but in the uncovered life of the time one. Whatever may be the interest of jurisprudence, of art, of science, in life as natural and unprotected or unrestrained, that is, in a nude life, there can be no doubt of philosophy's interest. In such life, present to philosophy, the spiritual and the material, universal principle and the elements, are most intimately met.

So in the nude, in the free life and thought of the day, I would have you see what I mean by an immediate dualism. It is that walk in the forest with fear of a beast but always possible sight of a God. Somehow an unprotected life stands out as a protest, as a challenge, against any separation of the material and the spiritual; against a dual dualism and either of its acolytes, an abstract idealism or an abstract materialism. The free life is such a real and immediate struggle of body and soul! Almost too dramatic a theme for our ordinary philosophical jargon!

And, there being this struggle, so real and so immediate, it is all the more important in these times, not merely that professional philosophers, being realists, should be also immediate dualists, but also, as I have said already, that in this special era of philosophy and reconstruction with its reversion to the natural and the real, with its open intimacy of the ideal and the vital, the pending changes be consummated, while without oppression, with benefit of law and order. It can not properly be the part of philosophy to translate its realism into anarchy or its naturalism into a Garden of Eden. Rather must philosophy prove its appropriate heritage of self-control by realizing that violence and sudden change or revolution must delay if not defeat real progress. Progress, as demanded by the day's close struggle of ideality and vitality, can indeed be accomplished, for that matter even safety can be secured, only by enlightened and sympathetic thinking, by institutional generosity and by some real satisfaction of the new hopes and hungers. Dogmatic naturalism, throwing off all the protective covering of a hard won civilization, like its counterpart, obstinate conservatism, would bring only disaster. The great power of a great thinker is not more in his vision than in his self-control.

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THE CONCEPTS OF CLASS, SYSTEM, AND LOGICAL SYSTEM

THERE is still some disagreement as to the exact meaning of the concept "class." The older symbolic logicians, such as Boole and Schroeder, included under the term any collection whatsoever, regardless of whether or not the entities of which the collection was composed had any properties in common. "Cabbages and Kings" form a typical class in this sense of the word.

Modern logicians, however, under the leadership of the authors of *Principia Mathematica*, have somewhat modified this definition. Though they still maintain that a class is entirely determined once

its membership is fixed, they have added to the idea of class, as a mere collection, the requirement that the collection objects must have some common characteristic or fulfil some common condition. This has been done by defining the concept "class" by means of the idea of a propositional (or other) function, for which a class is the complete collection of (true) values. Without going into the subtleties of the definition as given in the *Principia*, particularly by neglecting the difficulties introduced by the fact that a class is defined only in use, the definition can be roughly put: that a class is an exclusive and complete collection of entities all of which fulfil some common condition. In this sense not every collection is a class, or, at least, there is no necessity imposed by the definition itself that every collection be a class. Moreover, though it is not necessary to specify completely the common condition needed to define a class, in practise this condition must be logically significant, thus excluding as classes collections the common condition of which are irrelevant to the universe of discourse in question. (To the *Principia* such a collection would be " ϕ, ϵ, C " and, perhaps, more important, excluding collections which are composed of entities of different types.)

Now, though it is necessary that the objects that form a class be an exhaustive list of the (true) values of some function, that is, have some characteristic in common, it must not be supposed that the nature of the function of which the entities are values affects the nature and properties of the class it defines, except in so far as it determines the membership. It happens that the pen, pencil and paper which form the class "objects on my desk," are the only writing implements in the room. They, therefore, constitute the class, "writing implements in the room," and this class, because it has the same membership as the class "objects on my table" is identical with it, *20.11¹, though it is hard to find anything that the defining functions have in common except that they happen to be satisfied by the same set of entities.

On the other hand, the fact that, even though according to the theory, the properties of any class are purely extensional, that is, are defined not as an arbitrary collection but as a collection satisfying some condition, gives the logician power to deal with a class even though he does not know what are, in detail, the values that define it, for he can always consider the class to be a collection of hypothetical values which have only the property that they satisfy the function in question. This makes possible the logical treatment of infinite and other classes, the membership of which can not be enumerated, and,

¹ Starred numbers refer to theorems or sections of the *Principia Mathematica*, Whitehead and Russell, Cambridge.

more important, allows the development of a theory of classes in general, which would obviously not be possible if all classes must be enumerated.

Now, no one would deny that the concept class as defined above is of very great importance to that part of logic and mathematics which deals with the most general relations of groups, regardless of their private nature. In fact, no more general type of collection could possibly be of much use to these sciences, for, even if such existed, it would at least be the exclusive and complete set of values of "the group which satisfies the logical condition in question," and hence be a class in spite of itself.

However, no matter how adequate the concept of greater concreteness than, say "quantity," there are certain special aggregates which no complete theory of the science can get along without, and which deserve definition. These are the concept of system and logical system. As we have said, one of the principal properties of classes is that two classes which have the same membership are identical, but, in ordinary life as well as in logic, we constantly meet useful aggregates which, though they have the same membership, have quite different properties, considered as a collection. Thus the collection of raw recruits out of which an army is made is quite different, as a collection, from the army after organization, though of course, recruits and army form quite the same class. Thus a crystal of common salt is quite a different aggregate from the mixture of sodium and chlorine into which it can be dissociated, though both crystal and mixture, being composed of the same atoms of Na and Cl, are the same class. For, as we can easily generalize, the concept of class is not adequate to deal with aggregates the significant properties of which depend on the organization of their parts, that is, depend on the relation between their members. Yet internally related aggregates exist in which the resultant properties are a function of the nature of the relation, and these aggregates are of great practical as well as logical interest, being what are commonly called systems. We may, therefore, define a system as an aggregate such that each of its members has a definite relation to some other member or group of members of the aggregate. Or, in the nomenclature of the *Principia*, a system may be defined as the class which is the field of a certain sort of relation, *i. e.*,

$$\text{Sys} = \hat{\alpha}\{(\exists \mathcal{R}) . \alpha \in C^{\mathcal{R}}\} \quad Df$$

where the symbols have their usual meaning except we have a different R than that used in the *Principia* to indicate that "relations" can not have the extensional meaning (*i. e.*, a class of couples) given to them in the *Principia*; otherwise, by *33.45-6, two systems with the same defining relations would be identical, and one of the chief

formal differences that distinguish a system from a mere class must be that if a class of members of two systems are identical while the defining relations are different, the systems must be different.

Moreover, the fact that an extensional logic such as that of the *Principia* is, as far as I can see, unable properly to define a system is no mere omission on its part. Every possible logic, extensional or otherwise, every bit of connected or even intelligible discourse, is a system, in the sense defined above, since it differs obviously from the mere collection of its theorems, in that proofs are present, and thus any logic which considers terms to be defined by extension is logically imperfect, since its own terms are not so defined. The system composed of theorem and postulate, so related that every theorem is proven, can, according to the extensional theory, differ in no way from the disordered group of theorems and postulates which are merely asserted, and thus, extensional logic itself differs in no way from the mere dogmatic statement of its unproven theorems.

This same point comes out even more strongly in connection with the third of the concepts which we wish to define: that of logical system. A logical system does not differ from a system as defined above in any such fundamental way as a system differs from a class. Logical systems are merely a particular class of systems; nevertheless they are of importance, as can be most readily seen by attempting to differentiate such a system as logic from a less logical treatise composed of the same terms. Without some specification of the general nature of the relation which makes it a system, it is impossible to give the general theory of the distinction between a related list, where the relation is merely an arbitrary one, and such a related structure as logic, where, given one term or group of terms, all of the other terms are determined. Such systems, of which the external world and science are the most important examples, seem to deserve separate treatment under the name of logical systems. Loosely we may define a logical system as a system such that the properties of a separate part determines or implies the properties of the remainder. Or, more formally, a logical system is a system such that some of its members are unambiguously related to other of its members, where an unambiguous relation is any relation such that when the relata are given the relatum is completely determined. In effect then, a logical system is a system which can be considered under the postulate-theorem form, though logical systems are by no means limited to any special kind of membership (such as propositions) since, as we have said, both the causal system of the external world and the true account of it are logical systems, though they have memberships which do not even belong to the same type, one set of membership things and the other propositions.

We do not wish, however, to elaborate the connection of logical systems with the problem of types. We wish merely to point out that logical systems exist, and that all logic and all science are necessarily examples of them, and also to point out that no purely extensional logic can account for the existence of logical systems or their properties, thus placing extensional logic in the uncomfortable position of not being able to account for the very characteristic, namely, that theorem unambiguously follows from postulate, which makes it a science at all.

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NOTE ON THE RELATION OF SUBALTERNATION

IN a recent article in this JOURNAL (*Non-Aristotelian Logic*, August 15, 1918), in which a generalization of the classical logic was proposed, the relations of subalternation were tacitly held to be true.

This feature of the science being all but universally denied in recent times,¹ it was not unnatural that a number of critics should have privately informed the writer that this assumption invalidated some of his results.²

Thus, if we employ the symbol, \angle , for *inclusion*, the four categorical forms, A, E, I, O, might supposedly be represented as follows (b' standing for non- b ; the "prime" to the right of the bracket indicating that the proposition is *false*):

- (A) All a is $b = (a \angle b)$
- (E) No a is $b = (a \angle b')$
- (I) Some a is $b = (a \angle b')'$
- (O) Some a is not $b = (a \angle b)'$

¹ Cf. Couturat (*Des propositions particulières*, *Revue de Métaphysique et de Morale*, t. XXI., p. 258).

"Du moment que les particulières sont des existentielles négatives, on ne peut pas déduire une particulière d'une universelle (ni inversement). Donc la subalternation classique est fausse. De: «Il n'y a pas de a non- b » on ne peut nullement inférer: «Il y a des ab ». Cette inférence n'a pu faire illusion que grâce à la prémisse additionnelle et tacite: «Il y a des a », qui semblait impliquée dans le langage."

Couturat in the same article (p. 257) attaches the following meaning to A, E, I and O:

- (E) Nul a n'est $b = \Pi$ n'y a pas de ab .
- (A) Tout a est $b = \Pi$ n'y a pas de a non- b .
- (I) Quelque a est $b = \Pi$ y a des ab .
- (O) Quelque a n'est pas $b = \Pi$ y a des a non- b .

² It was this misapprehension, which the original article ought to have removed; but what follows will serve to present the matter from another point of view.

Here A is the contradictory of O and E the contradictory of I, but it no longer holds true that

A *implies* I,
E *implies* O.

We wish to point out that this interpretation of Aristotle's four forms is in no way forced upon us, for we may assume:³

- (A) All a is $b = (a \angle b)$
- (E) No a is $b = (a \angle b') (a \angle a')' (b \angle b')'$
- (I) Some a is $b = (a \angle b')' + (a \angle a') + (b \angle b')$
- (O) Some a is not $b = (a \angle b)'$

(the symbol, +, standing for *either, or*; the multiplication symbol for *and*).

From these results we obtain $AE \angle O$, which contains

A *implies* I,
E *implies* O,

since A remains the contradictory of O and E the contradictory of I.

It should be remarked too that A and I become *true* propositions, when subject and predicate have been identified, whereas E and O become *false* under the same circumstances. Thus,

Some a is $a = (a \angle a')' + (a \angle a') = 1$
No a is $a = (a \angle a') (a \angle a')' = 0$

Finally, it will be observed that E and I retain their characteristic property of simple convertibility.

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REVIEWS AND ABSTRACTS OF LITERATURE

Life and Finite Individuality. Two Symposia: I. By J. S. HALDANE, D'ARCY WENTWORTH THOMPSON, P. CHALMERS MITCHELL, and L. T. HOBHOUSE. II. By BERNARD BOSANQUET, A. S. PRINGLE-PATTISON, G. F. STOUT, and VISCOUNT HALDANE. Edited for the Aristotelian Society with introduction by H. Wildon Carr. London: Williams and Norgate. 1918. Pp. 194.

"The purpose of the Aristotelian Society Symposium is to bring together opposite, divergent, and diverse answers to some vital question of philosophical controversy in a definite manner" (Introduction, p. 5); and these Symposia have certainly accomplished that purpose.

³ This solution was once suggested to me by Professor E. A. Singer, Jr., who now allows me to publish it as a reply.

Opposition and diversity, however, are so familiar in philosophy that one feels bound to ask if a symposium ought not to do more. Should it not furnish some new evidence, or adjust the older claims in some new fashion? Reading the papers before us from this point of view, we find most of them perhaps less satisfactory than we have a right to expect. The first Symposium's topic reads: "Are physical, biological, and psychological categories irreducible?" Mr. Haldane, answering with an unqualified affirmative, carefully explains that he is no vitalist. "On its [vitalism's] positive side the result is quite indefinite. The something which was supposed to interfere from without in the physical and chemical reactions can always be shown by experiment to be dependent on what were admitted to be physical and chemical conditions . . ." (p. 12). "Vitalism thus represents no clearly definable working hypothesis" (*ibid.*). These words are no doubt true; vitalism has never, even in the hands of Driesch, succeeded in conceiving a definite explaining principle whose *modus operandi* is intelligible and which is neither physical nor chemical. At the same time, this is no ground for refusing to seek such a conception and saying summarily as Haldane does "for this reason I do not propose to consider it further" (*ibid.*). His own strictures upon mechanism, indeed, are sadly in need of some such conception as a positive basis; as they stand they seem only to show that mechanism has not at present advanced so far as is commonly thought. That it is essentially incapable of explaining life he certainly gives little argument to demonstrate; for he points out no positive trait of life which is antagonistic to such explanation. He does not, for example, consider such an attempt as that of Troland's enzyme-theory, which, using the notion of autocatalysis, would account for that very *differentia* of a living organism which Haldane announces in the words "A living organism differs in this respect from any mechanism which we can construct or conceive, that it forms itself and keeps itself in working order and activity" (p. 14). That mechanists have not themselves proved their point, is obvious enough: "they argue that life *must* be a mechanical process" (p. 14) and do not show that it *is* one. But this is no *refutation* of mechanism. And when he says "Any mechanism there may be in the parent organism is absent in the process of reproduction, and must reconstitute itself at each generation, since the parent organism is reproduced from a mere tiny speck of its own body" he is oblivious to what he must know well, that that "tiny speck," the fertilized ovum, has a very definite structure, and that mitosis is far from being shown a non-mechanical process. Why should a "tiny speck" not have a structure which mechanically determines its own fission and growth? Mr. Haldane next proceeds to a line of argument which can scarcely be considered

anything but irrelevant; *viz.*, that mechanical conceptions are "abstract" and therefore inadequate to the full measure of reality. "For many practical purposes this definition [of reality by mechanical physics], it is true, suffices. But even in connection with heat, light, and electricity, the definition is insufficient. In chemistry it breaks down still more, and in biology the breakdown is complete" (p. 18). If then life were explained in terms of electrons and their functions, would Mr. Haldane deem that a mechanical explanation or not? To all intents and purposes, it would be one. The trouble is that he has defined "mechanical" in a narrower sense than most mechanists would admit. If mechanical physics breaks down in the attempt to explain chemistry, there is yet some ground for believing that electrical physics may succeed in the attempt. It is not the abstractness of mechanical physics that makes it break down, but its infertility to explain certain specific chemical phenomena—an infertility which the concepts of electrical science, equally "abstract" as they are, may very probably not share. This sort of idealistic refutation of mechanism by condemning its abstractness is as much beside the point as it would be to argue that gravitation does not account for the orbits of the planets, since it is an abstract concept and they are real bodies. The only question for mechanism in biology is, can the conceptions which physical science finds sufficient to explain inorganic nature (whose sufficiency in principle nobody denies) eventually suffice to explain organic phenomena? Toward the answer to this question Mr. Haldane's criticisms, it must frankly be admitted, contribute nothing. The trouble lies, in short, in his confusion of mechanism with the principles of Newtonian mechanics, which are now generally considered insufficient by physicists themselves; not because they are abstract, but because they are infertile in the domain of electricity and radiant energy. And he himself does not, any more than the vitalist, state a specific property of living organisms which he shows to be irreducible to the categories of physical science. Summary declarations such as "in each detail of organic structure, composition, environment, and activity there is a manifestation or expression of the life of the organism regarded as a whole which tends to persist" (pp. 21-22) are but restatements of his thesis; they are not arguments which indicate that the persistence of that whole can not be mechanically explained. For details he refers us to his book *Organism and Environment*—which book, if the reviewer remembers correctly, relies mainly upon the same irrelevant argument from abstractness as that of this paper. Mr. Haldane, it must be concluded, leaves the biological issue exactly where he found it.

In his discussion of the irreducibility of psychological to biological categories, he has been a little more specific. "In physical or

physiological reaction one object reacts directly with another in space; the reaction is immediate or 'blind.' In the conscious reaction, both the actual past and the potential future enter directly also" (p. 23). Here is a clear distinction between mind and the material world; no new one to be sure, but doubtless all the more sound for that. Of course this factor mind might turn out to be essential to life, as Mr. Hobbouse later suggests; but Mr. Haldane rather dogmatically dismisses the possibility in a short paragraph (pp. 24-25) with the assertion that vital phenomena are determined only by immediate conditions. How to reconcile this immediacy of determination with the remoteness of the utility of certain instinctive responses, he does not tell us.

Mr. Thompson in the next paper points out that no others have served better than the mechanist's methods toward explaining vital phenomena. As for the objection that no mechanism can be self-regulating or self-propagating, he shows contrary instances in the case of the solar system, constant climates, etc. Doubtless he does not hereby prove mechanism; he simply meets the arguments which would disprove it. Clear and straightforward as is his paper, he nevertheless adduces no new evidence; and the reader is led to ask if it is not rather futile to discuss this whole issue in lieu of some generally accepted definition of life. Should we not at least reduce the main admittedly fundamental properties of living matter to lower terms before we attempt to decide whether they are susceptible of purely physical explanation? Says Mr. Mitchell in the third paper "I believe that the naturalist and the supernaturalist are the exhibitors of two dispositions" (p. 56), and perhaps that is the last word, as far as present knowledge goes.

In contrast to the above, and with characteristic conscientiousness, Mr. Hobbouse seeks to define *mechanical*. "In a mechanical whole, then, each part acts uniformly in response to a given force independently of the condition of the other parts, and independently of the results of its action" (p. 63). In living organisms, on the other hand, "not the end, but its own tendency to produce the end, brings each successive act about" (p. 65). This would seem to imply that organic tissue must possess consciousness (*i. e.*, awareness of what it wants); but the objection will perhaps disappear when we realize that it is only consciousness of the lowest possible order, *viz.*, conation. "In the lowest stages it is, perhaps, no more than a felt lack or uneasiness which stimulates whatever be the characteristic activity of an organism, or an organ, to a higher pitch" (p. 67). Trial of one response, failure, trial of another, and so on "till relief is fully achieved, when the need vanishes and the effort with it" (p. 67)—this is the non-mechanical essence of living process. "I would sug-

gest though I must leave it to others with more knowledge to apply and test the suggestion, that so far as the operation of organic parts appears to be dominated by the requirements of the organism, the operation is either due to a subtle mechanism or to a low grade of conation" (p. 68). ". . . the organic system is in a general sense purposive, *i. e.*, at least conational, becoming purposive at its higher removes" (*ibid.*). Here at last is a definite suggestion; for conation is a *vera causa*, as a Drieschian "psychoid" is not, and vitalism might claim that Mr. Hobhouse has given it a positive and specific content. But Mr. Haldane in his concluding remarks does not wish to avail himself of this helping hand; he declares that "observations do not suggest anything like conscious purpose" (p. 74). He seems quite to overlook the distinction between conscious purpose and conation which Mr. Hobhouse was careful to make. At all events it seems not unjust to say that the latter is the only one who has contributed a positive suggestion to the discussion.

The second symposium raises the familiar question of the degree of independence possessed by finite selves. If it does nothing else, it succeeds in bringing out the largely negative quality of speculative idealism; the tendency, namely, to rest with the claim, in regard to any positive category, that that category is not ultimate. Nominally, of course, such idealism admits the reality of all that is positive; but its interest and emphasis so plainly lie in going beyond all finite categories to the whole, that it has little to contribute toward explication of any one of them. Hereby the evaluation and the metaphysical dignity of the self are bound to suffer. "Our minds, if they could be visualized . . . would not look like self-contained shapes. . . . They would look like bits of machines or organs of organisms, fragmentary and incomprehensible . . . all senseless and self-contradictory apart from the inclusive structural system" (p. 82). These words of Mr. Bosanquet may well be true, while yet the structure and behavior of the finite individuals show a high degree of relative independence. The various stellar systems are subject to mutual gravitation, yet are so remote from one another that this interdependence is of little importance to our understanding of their particular traits. The really interesting philosophical question centers around the degree to which this remoteness is analogous to the interrelation of the selves. Do we understand their constitution and functions best by treating them as parts of a great system? Or is that a relatively uninforming method of studying their nature? To judge by results, the latter alternative would seem true; at any rate speculative idealism concerns itself so little with detailed study of this fundamental category as well as others, that it must be regarded as not merely a one-sided, but a narrow and

infertile point of view from which to draw a picture of reality's main outlines. As if conscious of this defect, Mr. Bosanquet habitually deprecates such finite cravings as that for personal immortality, temporal progress or freedom of choice. And for this rather lofty disregard of specific interests—which after all are as genuine as the interest in logical completeness—he is, we think, very properly reproached by Dr. Pringle-Pattison. The latter speaks of “Professor Bosanquet’s on the whole grudging and depreciatory treatment of the finite self” (p. 108). And this is the more significant, as the critic does not deny the interdependence of the various selves. He maintains it; but also he insists upon the importance of individual centers as something real in and for themselves. “The higher we go, the more clearly does individuation impress itself upon us as the very method of creation, or, to speak less theologically, as the central and most characteristic feature of the cosmic evolution” (p. 107). Mr. Bosanquet’s treatment, in fact, is too one-sided and abstract to be just to the full nature of the self. “Professor Bosanquet’s exclusive preoccupation with content leads him to forget that content is equally an abstraction, if severed from the centers of experience—the beings—in which it is realized” (p. 108). In another way too does the idealist’s abstractness appear; his attention is engaged exclusively with the cognitive aspect of the self. “In speaking of finite selves he never seems to look at them from the inside, if I may so express myself, but always from the point of view of a spectator momentarily concentrating attention upon them in abstraction from the social whole which is their setting” (p. 113). “And, by common consent, it is the volitional aspect of that experience, the facts of will, culminating in deliberate moral choice, in which the consciousness of ‘authorship,’ as Professor Parker calls it, is most indubitably present. This authorship of our own acts and our responsibility for them—this is the inmost meaning of our freedom and independence . . . ” (p. 114). “The truth is, Professor Bosanquet’s general theory is of the type mentioned above, in which the logical analysis of knowledge is substituted for an account of living experience” (p. 115). In short, speculative idealism offers an abstract and rather meager, though so far not incorrect, account of the finite individual.

Dr. Stout’s closely reasoned paper, discussing the logic of the question, points out that the part, to be distinguished from the whole, must have something which individuates it, and is thereby irreducible to terms of the whole. We may go further. “It is simply contrary to fact to say that, in so far as I am a member of society, my mental processes are connected with those of other members of the same society in a way at all analogous to that in which

the various phases and constituents of my own being are connected in the unity of my conscious life" (p. 140).

Lord Haldane, defending the doctrine of the organic whole, finds that thought is quite adequate to its explication. Messrs. Bradley and Bosanquet, he believes, take thought in too limited a sense when they allege that it falls short of reality. "I find it difficult to interpret the highest and most direct form of knowledge as akin to unmediated feeling. Experience is one, although it has many aspects and degrees towards perfection. It is surely always mediated by thought" (p 172). In his reply at the end, Mr. Bosanquet emphasizes, as all idealists do, that pluralism and realism are to-day outgrown. "The dangerous opposing fallacy is that of individualism and pluralism, which, while claiming, like certain forms of realism, to be a philosophy of the future, is in its essence a superstition of the past" (p. 179). But has an absolutist a right thus to appeal to history to justify his doctrine when he does not believe in a necessary progress in time?

W. H. SHELDON.

DARTMOUTH COLLEGE.

The Psychology of Courage. HERBERT GARDINER LORD. Boston: John W. Luce and Company. 1918. Pp. viii + 164.

It is hardly a matter of surprise that a teacher, beloved of so many young men, should have felt impelled to write this little book. The work is assuredly the fruit of the writer's reaction to the tragic events of the five years just past. Professor Lord writes in no hortatory fashion nor for the purpose of edification. On the other hand, his book is obviously intended to arouse a sympathetic appreciation of the varieties and complexities of that which is called "courage." The volume is popular in character and is directed toward a circle of readers wider than that for which the usual psychological treatise has interest. The book is eminently successful in its effort toward clearness and readability. Criticism on the charge of over-simplification is properly forestalled by the author in that he points out how the degree of simplification is dependent upon the character of audience to which the work is addressed.

As Professor Lord indicates, this book is based on the theory of instinct presented in MacDougall's *Social Psychology* and on Shand's theory of the sentiments. It begins with an exposition of the nature of instinct, and by distinguishing between the simpler and lower and the higher and more complex forms of courage. These higher forms of courage are shown to involve the organization of sentiments.

Courage, we are told, is in all forms "the overcoming or bear-

ing up against resistances to the activity of certain mechanisms, in-born or acquired" (p. 24). Of the various classes of such "pushes against resistances" only one, properly speaking, is courage. In this class the obstruction is always the operation of the instinct of fear (p. 26). Cowardice is therefore "the overriding of the activity of other instincts by the more vigorous activity of fear" (p. 27).

The overcoming of fear may occur through the force of any one of several instincts or through combinations of several of them. The author particularly emphasizes the rôle of the instinct of self-assertion in cooperation with pugnacity in overcoming fear (p. 35). Foolhardiness, a "genuine courage, based on self-assertion, and overriding fear easily, is courage without intelligence gained by experience" (p. 37).

The higher forms of courage have the form of a sentiment. "Thus it is evident that the problem of courage on levels higher than instinct is the problem of building up these acquired mechanisms, whose pushes will override all aversions—all fears within—all difficulties without . . ." (p. 51). But even the higher forms of courage may appear inadequate; for there are, in a sense, higher forms of fear, and a comparatively high type of courage may triumph over the grosser fear only to prove insufficient to withstand the pressure of a less gross and obvious type of fear. For "through fear of disapproval by self and others as a member of a minor group, one may become a coward in face of situations of wider and deeper import" (p. 66).

The ultimate foundation of the higher forms of courage is to be found in a sentiment which serves as substratum for the sentiments which can be looked upon as varieties of courage. This underlying sentiment is regarded by the author as, in the last analysis, a philosophy of life. In its noblest and most humanitarian form courage depends on the "existence of an ultimate faith as regards the nature of the world order" (p. 87).

This discussion of the forms of courage is followed by three chapters on the training of courage. The first of the three considers "Training for Courage in General," the second, "The Conditions and Special Training of Soldiers for Courage," and the third, "The Restoration of Courage When Lost," with a brief discussion of restoration after shell shock through the rebuilding of the sentiment-mechanisms which have the mastery over the fear-impulse. The book closes with an Epilogue on "Morale."

ALBERT G. A. BALZ.

JOURNALS AND NEW BOOKS

MIND. October, 1918. *On the Relation Between Induction and Probability (Part I.)* (pp. 389-404): C. D. BROAD.—Proposes to prove three points: "(1) that unless inductive conclusions be expressed in terms of probability all inductive inference involves a formal fallacy; (2) that the degree of belief . . . can not be justified by any known principle of probability, unless some further premise about the physical world be assumed; (3) that it is extremely difficult to state this principle." *The Rights and Wrongs of a Person. Part II. (Man, Beast, and Mother Earth)* (pp. 405-421): W. M. THORNBURN.—The writer, a very pronounced philozoist, inveighs against any tendency to exalt man as any better than other forms of life. He believes in the righteousness of inequality and exhibits a pronounced preference for aristocracy. *What Formal Logic is About* (pp. 422-431): F. C. S. SCHILLER.—A reply to an article by Dr. Arthur Mitchell on the above title. Maintains that Dr. Mitchell is a *Formalist* in the bad sense, that though professing to recognize the problem of *meaning*, the meaning he gives to meaning is untenable, and that his view of logic would give a veto on the progress of knowledge. *The Basis of Bosanquet's Logic* (pp. 432-463): L. J. RUSSELL.—States, examines at length, and rejects the four fundamental propositions on which it is asserted that Bosanquet's logic is based, *viz.*, that all judgment is a definition of reality, that all judgment exhibits necessity and universality, that every judgment has the two aspects of fact and necessity, and that every judgment deals with teleology. *Discussions: Logic and Formalism* (pp. 464-471): H. S. SHELTON.—Replies to previous criticism directed by Dr. Schiller against the logical views of the writer and also those of Mr. Pickard-Cambridge. *What Does Bergson Mean by Pure Perception?* (pp. 472-474): H. WILDON CARR.—Elucidates a passage in Bergson's *Matter and Memory* (pp. 26-30) which was stated by Mr. Harward in the April number as being unclear. *Critical Notes. New Books. Philosophical Periodicals. Note.*

Bond, Frederick Bligh. *The Hill of Vision: a forecast of the Great War and of Social Revolution with the Coming of the New Race.* Boston: Marshall Jones Co. 1919. Pp. xxv + 134. \$1.50.

Cook, Albert Stanburrough, editor. *The Old English Elene, Phoenix, and Physiologus.* New Haven: Yale University Press. 1919. Pp. lxxxix + 239.

Hunter, Walter S. *General Psychology.* Chicago: University of Chicago Press. 1919. Pp. xiii + 351. \$2.00.

March, Norah H. *Towards Racial Health: a handbook on the training of boys and girls, parents, teachers and social workers.* New York: E. P. Dutton & Co. 1919. Pp xiii + 320. \$2.00.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held in London on June 2, 1919, Lord Haldane in the chair. Dean Inge read a paper on "Platonism and Human Immortality," a synopsis of which follows:

The Platonic doctrine of immortality rests on the *independence* of the spiritual world. The spiritual world is not a world of unrealized ideals, over against a real world of unspiritual fact. It is, on the contrary, the real world, of which we have a true though very incomplete knowledge, over against a world of common experience which, as a complete whole, is not real, since it is compacted out of miscellaneous data, not all on the same level, by the help of the imagination. There is no world corresponding to the world of our common experience. Nature makes abstractions for us, deciding what range of vibrations we are to see and hear, what things we are to notice and remember. It is the substantiation and continuance of this makeshift construction that we are sometimes childish enough to desire. What is real in it is the thought of God transmuted into vital law. The operation of these forces we study mainly in transverse sections, since we have forgotten most of the past and are ignorant of the future. But since the soul is a citizen of the eternal world, we can, if we will, "be eternal in the midst of time," though our higher life is for most of us fitful, indistinct, and confused. It follows that salvation, for the Platonist, must be *deliverance* from a world of shadows and half-truths, *per tenebras in lucem*.

DR. HORATIO K. GARNIER (Ph.D., Columbia, 1918), has been appointed professor of history and social science in the University of Porto Rico at Río Piedras, P. R.

SPECIAL NOTICE

COMMENCING January 1, 1920, the subscription price of the JOURNAL OF PHILOSOPHY will be \$4.00 a year.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE DEFINITION OF LOGIC

OUR familiarity with the definition of logic as a science of the laws of thought makes it easy to forget that thinking is not something given with determinate characteristics like the elementary substances of chemistry. If questioned, we explain that logic is a normative science. Its purpose is to aid in attaining truth and its laws are fixed by their relation to that end. We repeat as fundamental the laws of "identity," "contradiction" and the "excluded middle." On the basis of these and similar laws we develop a technique, more or less perfectly, and consider that our task is completed. To be sure there is still the problem of induction, but Mill's methods, a few selections from the psychology of observation, and perhaps a few general remarks on the definition and methods of science cover that well enough. The conscientious teacher may be a little baffled at the scant power of this method to vitalize thinking. The selected fallacies of the texts may have been adequately conquered, but when he turns to newspaper articles, political speeches, and matters of current interest, which he is sure are rotten with bad thinking, the amount of grist for the logic mill is surprisingly small.

The difficulty seems to me to arise from a blind following of tradition as to the nature of logic. In the first place the process of thinking is not a separate and clearly defined activity of a special faculty. It is a phase of human behavior in response to situations presenting obstacles to direct action. In the second place, its successful culmination, the truth, is for us nothing but the final moment that prepares a course of action fulfilling expectation. Verification demonstrates that it actually does so. Now if we turn to human history, it is not difficult to show that the thought phases of human responses have not always been selected by the same principles and that the expectations that the culmination must lead to fulfilment, if it is to be valued as truth, are not always the same. In other words, if truth is a name for the desideratum of thinking, it has had many meanings and for each meaning there is a different method of thinking that can be called the best. In a generalized sense, the laws of logic are the generalized description of procedures that have been

believed (proved?) to be successful in attaining a desired outcome of thought and that desired outcome is called the truth.

Among primitive peoples there seems to be retained a survival of a way of thinking in which interpretation in harmony with tradition is accepted as truth. In this stage men are impervious to experience. That is, the failure of events to conform to statements does not make them reject the statements but rather add more statements that attempt to link the exceptional cases with tradition and leave the former ones unmodified. Lévy-Bruhl¹ quotes a statement from Livingstone to the effect that after long discussions with rain-makers in Africa he never succeeded in convincing any of them of the falsity of their thinking. Another quotation reveals clearly the thought processes that are used: "On returning from the king's house I shot at a bird on a tree and missed it. I had taken quinine and my hand trembled. But the negroes who were there cried out that it was a bird-fetich and that I *could* not hit it. I shot again and missed again. Triumph of the spectators. However I loaded my gun again. I aimed with care and I hit the bird. A moment disconcerted, the negroes explained that I am a white man and that the laws of fetiches are not wholly 'true for me. So that my last shot proved nothing to them in the end.'" It is clear here that the aim of thinking is traditional interpretation and the enforcement of custom, for a native would not have tried to shoot the bird. Naturally with this conception of truth, experiment would not disprove the statement. The only disproof could come from rejecting the custom as bad and changing the habits of practises.

Lévy-Bruhl demonstrates conclusively, I believe, the complete difference between the type of primitive thinking and ours, although I think he hardly grasps its full extent. Our thought and observation are so thoroughly controlled in general by the ideas of the subject and objective, of the uniformity of nature,² and of universal causation that it makes us almost incapable of understanding thinking where these ideas are not sovereign. Yet it is not unusual to find violations of the principles of identity, contradiction and the excluded middle at the primitive stage. The one law Lévy-Bruhl lays down is that of "participation," but he calls the whole process "pre-logical." It is more expedient, however, to recognize it as a different type of logic controlled by a different aim. Also it has not been wholly superseded as any student of *Science and Health* or other contemporary mystical publication can testify.

¹ *Les fonctions mentales dans les races inférieures*, p. 62.

² Poincaré believes this derived from watching the stars and Cornford tries to show that it was, for the Greeks, a carrying over of habit and custom from social practises.

Unfortunately we can not trace the historic continuity of our thinking, in any adequate fashion, to early types parallel to those we now study in the lower races. The pre-philosophic stages of Greek thought suggest, however, something not far different. At the beginnings of Greek philosophy the integration of experiences into ideas having close resemblance to those dominating our thought processes is well under way. But it is probable that we exaggerate the resemblance. It would be interesting to know how Plato would react to the expositions of his thought current in the modern philosophy classroom. We attempt to define Greek scientific aims and assert that Greek scientists sought the permanent behind the changing facts of perception, but there is no adequate articulation of the method by which this is attained. Plato escapes the problem by the doctrine of reminiscence helped out by suggestions from perception and the Socratic comparison of particular instances. Aristotle's epagogic is little more than the process of taking away specializing differences and moving by formal analysis to the most universal. The outcome intended is the interpretation of factual experience through an unified system of ideas in a form suited primarily to esthetic contemplation. The modern idea of increasing man's mastery over his destiny is not yet born.

The result of Greek thinking was the emergence of so many ideas that have been incorporated in contemporary thought processes that it is easy to forget the vast differences implicit in their type of thinking. They should be manifest from the nature of Aristotelian logic, but the intensity of our gratitude to Greece and the still prevalent yearning for authority has led us to try to repeat the old logical forms and believe that they must be expressing something vital in our thinking. We bravely set forth examples of syllogisms and fallacies, but we must recognize that our conclusions are rarely attained by such forms. The real problem that generates Aristotelian logic is the problem of disclosing a relation between the particular and the universal. For this purpose rigid definitions, formal propositions, and syllogisms are pertinent. This problem is still with us when the results of our thinking must be displayed, but it has now become a problem of exposition rather than of discovery. Hence the method which Aristotle conceived as that of thinking, a method of logic, is now a method of rhetoric.

Medieval thinking faces a problem somewhat analagous to that of the Greek and readily accepts the Aristotelian system. There is a difference, however, and that difference introduces changes into the logic. The purpose is still fundamentally contemplative, but instead of an unified system of ideas derived from experience, the outline, or

norm, of the system is derived from orthodox texts. The Socratic method and the epagogic are minimized. Revelation takes the place of reminiscence. The metaphysical aspect of the relation of the universal and the particular is emphasized, but formally it is the linkage of statement with statement that is sought. Hence that appearance of artificial schematization that so many writers on logic have since condemned as a debasing of the Aristotelian procedure. It is not really this, but a modification consequent upon the change in the conception of the function thinking is expected to fulfil. This function may seem to us less significant but the method can only be judged from its adequacy to the desired result and, so judged, it is no less efficient than the earlier one. Both Greek and scholastic aims still sometimes motivate contemporary thinkers and for them at such moments these logics are still good.

Roger Bacon leads those who proclaim a new motive for thinking. If his proposed inventions are to be realized, thinking must become something quite different from the processes his contemporaries professed to esteem. It was the merit of Francis Bacon to set forth the claim of experience, and if his method of induction failed, it is perhaps because in his haste for utility, he was caught by the dogma of the universal equality of minds. He had still to learn that minds have a history and that their efficiency depends both upon native endowment and the cumulation of experiences, that they are not extra-physical complete instruments, but must extend themselves into all sorts of laboratory apparatus which thus become integral parts of the process of thought.

Since Bacon, logicians have contented themselves with varied attempts to juxtapose induction and deduction in a single system. The rapid lapse of modern philosophy into German scholasticism in the service of a new orthodoxy, and the authority of that philosophy, did much to retard the development of the new conceptions of thought. But outside of philosophy scientific work progressed and the phrase "methods of science" has become increasingly popular. John Stuart Mill, because he was skilful in depicting the differences between the actual procedure of sciences and the methods of traditional logic, was the unconscious instrument by which many have come to see that the fulfilment of the aims of modern thinking can not easily be defined significantly through generalized method. If prediction and control are the ends of thinking, thought becomes a function of the subject matter to such an extent that it can not be isolated with profit to logic. If there is to be a modern logic it must be primarily a logic of investigation. Beginning with the picture of the new attitude of mind implied by the thirst for the results of ap-

plied science, its laws must be articulated from the concrete procedures of scientists, inventors and social innovators. But apart from the subject matter with respect to which they arise, these laws can hardly be understood or applied.

Such a logic is the instrumentalist logic. It has not yet found its way into logic texts in any adequate form and perhaps can never do so. If we neglect the emasculated scholasticism, pieced out by somewhat obvious comments on induction, current to-day, its chief rival is the neo-realistic logic. This system has at least the merit of seeking scientific exactitude and completeness in the modern sense. It is not, however, a method of thinking although it is an instrument that a thinker can use. It can only be called logic if the term is to take on an entirely new connotation. There is, of course, no inherent difficulty in so transforming a term, but whether it would be expedient to do so in this case depends upon the extent to which the new procedure is applicable to scientific procedure. There is a strong historic presupposition that logic must somehow be an interpretation of the best, that is, of scientific knowledge. It must make for the attainment of truth in whatever way truth is defined. A mechanics of rearrangement such as Jevons's "logic" machine or the modern computing machines can hardly be said to exhibit logical processes unless we are prepared to call steam engines and automobiles that run examples of logical processes, a perfectly possible thing but hardly clarifying.

The presupposition of realistic logic is the reduction of experience to terms and relations. Leibniz saw more clearly than the modern partisans that the first necessity is that of a new dictionary in which every object can be so precisely defined that for a system of relation it can be forgotten and a devitalized algebraic letter substituted for it. Whereas he was limited to relations of inclusion and exclusion, modern research has substituted a more rich and flexible system of types of relations, the asymmetrical, transitive, the diadic, triadic and the like. When these relations are few in number a small group of postulates may suffice to define fundamental connections. The method then consists in devices for making manifest the relations that are also present according to the postulates when any two or more entities or groups of entities are given. Such expansions may actually fall within the class of discoveries for it is not always obvious what is really given with the fundamental assumptions. Professor Royce used to be fond of reminding his classes that it took two thousand years to show that when you had given the ideas of the square and of the circle, it was also established that a square could not be constructed by ruler and compass methods having an area

equal to that of a given circle. But is such a discovery quite the equivalent of the discoveries of the properties of radium or of the conditions under which communistic undertakings will be successful? This I doubt, although the connections between the fundamental factors and the conclusion might be expositied by an analogous system.

It is a curious thing that this conception of logic should have come into vogue and attained a high development after the doctrine of evolution had taken such a firm hold on scientific thinking. As Professor Dewey points out in his essay on "The Influence of Darwinism," it is precisely that notion of fixed kinds and abiding essences which lies behind the conception of terms for this logic, that is destroyed by the theory of evolution. The modern scientific problem of definition is that of selecting recurring and identifiable objects with properties that make verifiable predictions possible. The predicting gives little trouble, but not so the discovery of significant properties, or, sometimes, the process of verification. This logical method, though it theoretically should aid the process of prediction, is practically rarely applicable until the problem is solved.

The realistic logicians are fond of asserting that mathematics is nothing but a branch of formal logic. It would be, perhaps, truer to assert that their logic is nothing but an extension of mathematics. They have made clear for the first time the explanation of the possibility of applied mathematics and the use of diagrams in all sorts of fields. This is through the conception of types of relations. If mathematics deals with mere symbolized terms and sets of relational types, naturally whatever is true of these types is true of concretely specified relations that fall under the types, and one set of specifications, such as spacial relations, can serve to represent another, such as movement of prices. Historically mathematics attained its generalizations from the study of what could be counted or measured. It has extended this field to include relations of spacial objects involving other relations sometimes called qualitative. But the new system gives for the first time the generalized method that indicates the course and procedure of all further expansion. The question of the application of realistic logic is then the question of the limitations of applied mathematics.

The mathematical method represents an ideal (*i. e.*, utopian) structure for scientific knowledge. In so far as any investigated field can be reduced to a system of clearly defined entities, not too great in number, and fundamental relations between them abstractly formulated, mathematical derivation of all implied consequences is possible. If there were a few hundred variables and a corresponding number of relations, the technique would become too complicated to

be practicable. The definitions must give an exhaustive list of the properties of the entities in so far as they enter into effective relations within the system in question. With problems of physics and engineering these demands have been sufficiently met. By the use of statistical methods and probabilities, it is possible to make some allowance for factors not observed or the operation of which is not completely understood and the useful application of mathematics extended. Unfortunately in the biological and social sciences, it is not always easy to tell what are fundamental entities or what are their effective properties for situations that are to be met. Hence the application of mathematics makes little progress.

The structure of the physical world parallels the structure of mathematical systems but with some significant differences. In geometry, points are comparatively simple entities. In proper relational systems they are approximately equivalent to lines, although lines have a new quality, direction; lines define plane figures, with a few new properties such as shape and area; planes define solids; *etc.* So in the physical world, from comparatively simple electrons are constituted about 80 different atoms representing different numbers and arrangements of electrons. From these atoms are constituted numberless molecules; from these, aggregated states of matter; from these, probably, protobion, and so on through the cell, organism and multi-organism. In each case, as in geometry, the new entity is constructed from those that are simpler, but as a result of their integration in it new properties appear. There are, however, three striking differences when we compare this system with the mathematical one. In the first place, the number of new properties that appear at each level of integration in the system of nature is vastly greater than in the mathematical system. Hence the number of new definitions required at each step is greatly increased. A single property, direction, gives the new quality of any line, but several new properties would be required to give the new qualities of any atom, affinity, valency, mass, *etc.* In the second place, the first entities of the mathematical system are so highly abstract that all integrations of them permitted by the original postulates are equally possible, whereas in nature the frequency and conditions of occurrence are controlled, atoms of all possible sorts are not generated arbitrarily or in equal numbers. Thirdly, in mathematics we are fundamentally interested in the relations of entities on the different levels, while in nature we are interested especially in the processes whereby integration takes place.

The above strictures on the field of applied mathematics are not meant in any way to detract from its importance. Nothing could be more absurd than to try to belittle a technique by which mankind has

achieved such important and beneficial results both in practical and theoretical matters. They are, however, of significance when it is a question of judging the pretensions of a mathematical system to set itself in the place of logic. Unless this term is to be used in a wholly arbitrary sense, it should denote either the procedure of science or the methods of thinking by which truth, in some specified sense, is obtained. The mathematical system is only one of many instruments in the hands of the scientist and partakes more of the nature of a mechanical process than of concrete thinking. Mechanical thinking may be a moment in the thought process under favorable conditions, but it is far from being the equivalent of that process in general.

The most difficult problem for thinking to-day is that of making an analysis that shall result in the identification and selection of those factors in a given situation that can be taken as an equivalent of it for the purposes of prediction and control. We can not be sure that such factors have been obtained until we have verifications. But only then can they be genuinely symbolized as mathematical entities. Our texts still teach that we first formulate them hypothetically, deduce consequences by a sort of mathematical logic, and then seek verifications. Examples can be adduced, but they are usually taken from the field of applied mathematics. Professor Dewey incorporates this suggestion in the analysis of examples of thinking in his very suggestive little book, *How We Think*, but in actually analyzing the examples, this moment of thinking does not stand out very clearly. What seems to happen is that the idea of the problem and the previously acquired information that is pertinent to its solution are juxtaposed mentally until there results a sort of integration into a new idea all ready to use. Such integrations are accepted and lived by until we find ourselves again in difficulties and then new integrations are needed. Verifications are exhibitions of the potency of the new idea and although the connection between antecedents and consequences in such cases can be explicated deductively, the plan of verification is more likely to arise non-deductively during the psychological process of integration.

With our present preference for the instrumentalist conception of truth, in practice, if not always in theory, it seems unwise to limit logic either to the analysis of certain mental processes or to the objective techniques of the sciences. Perhaps it is too early to forecast what form this logic will take, what principles it will find it expedient to articulate. We need both psychological studies of investigators and empirical studies of investigations. There are some indications that the conception of mental integrations will baffle attempts to formulate the thinking process in a way significant for method

except in so far as precautions concerning observation, memory, and the effects of predisposition and prejudice may be stated. It is equally probable that significant generalizations of scientific practise may fail because of too close association between the materials and the ways of handling them, except in so far as certain systems of classification and arrangement of materials are evident. And there remains the rhetorical problem of the exposition of the results of thinking which can still be served by the survivals of Aristotelian formulæ, although the formal fallacies must be conceived rather as mistakes in reference to materials cited than as errors in deduction. Thus undistributed terms usually indicate a genuine opinion that the whole of a class is involved in a relation, an error in fact and not in inference.

No final definition of logic can then be laid down. In the last analysis logic appears as a method for the attainment of ideas approved for some reason as true. But the grounds for approval can change and with them the conception of the means of attaining the end. Primitive, Greek, and Scholastic aims still obtain amongst us and the most that can be said is that our age most generally prizes the instrumental conception of ideas. Consequently the instrumentalist conception of logic is most pertinent to it. This logic is most at home in the region of applied science. It is naturally disquieting to the ultra-conservative, distasteful to the ethic temperament, and resisted by orthodox theologians, although in each case it may be bent toward the end. Mankind is now seeking consciously directed development, but if it ever again seeks stability, who can say what logic will then prevail? Logic, like all other philosophic disciplines, has its inception in social conditions and its justification in the fulfilment of needs. Its systems, like other systems within philosophy, are not discarded because they have been found to be false, but because they have become uninteresting when new social conditions have brought to the front needs they are unfitted to meet. Errors can undergo correction, but there is no antidote to loss of interest, although the inertia of habit may temporarily maintain both philosophies and social institutions beyond their day.

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PURPOSE

WHEN two dice are thrown on a table, we say that there are eleven chances out of thirty-six that at least one four will be thrown. There is a branch of mathematics given over to the calculation of this sort of chance or probability. But chance in another

sense means "the combination of several systems of causes which are developed each in its own series independently of the others."¹ "For instance, if in the game of rouge-et-noir, I bet that the black will win, and it wins accordingly, it is clear that my desire and my word could not have had any influence on the winning of one color or the other, and likewise that the arrangement of the cards, which I did not know, could not have had any influence on the choice I have made. In this case, two series of facts, absolutely independent of each other, have happened to coincide with each other, and to harmonize, without any mutual influence. This kind of coincidence is what is called *chance*."² Harmony does at times, we recognize, come about in this fashion by chance. But when we find a great number of similar cases in which two phenomena are in harmony with one another, we refuse to believe that the series of events leading to the one phenomenon is independent of the series of events leading to the other. On the contrary, we believe that if we follow back the series of events leading to the one phenomenon we shall come to a point where there is some communication with the series of events leading to the other. Now we do find repeated and persistent cases of harmony between the organism and its environment. In such a case it can not be that the organism and its environment have developed in independence of one another. Rather, in the previous history of both organism and environment, there must be some point at which the environment has influenced the development of the organism, or at which the organism has influenced the environment, or at which each has influenced the other. Communication between the two causal series there must have been. The question is: where and in what form has the communication taken place?

Since Darwin's time men in answering this question have often had recourse to the theory of natural selection. The environment, it is said, has influenced the development of the organism by causing those individuals to survive who are most in harmony with it.³ But there are some phenomena of which this theory, thus stated, is not a sufficient explanation. The admirable fitness of the human eye has been pointed out by Bergson, Von Hartmann, and others. This complex organ, valuable in the struggle for existence only when completely formed, can not have originated by the natural selection of one part after another. For the organism equipped with but one of the elements that make up the eye would have had no advantage over his fellows and would, on this theory, have had no reason to survive

¹ Cournot, quoted in Janet, *Final Causes*, translation of the second edition by Affleck, p. 19, note.

² Janet, *Final Causes*, translation by Affleck, p. 18.

³ Warren, *A Study of Purpose*, this JOURNAL, Vol. 13, p. 40.

them. On the other hand, it seems quite impossible that the complex eye, completely formed, could have occurred as a chance variation. It is so well adapted to its environment that we can not believe that its development has neither influenced nor been influenced by that environment. Either some theory other than that of natural selection must be called in to explain such an organ, or the eye has not developed in either of the ways that have been considered.

Similarly no completely satisfactory explanation has been given of the way in which purposive actions achieve their objects. I desire to eat an apple and then appropriately stretch out my hand and bring it to my mouth. Professor Warren in a recent number of this JOURNAL argues that such an effect does not follow until the proper association has been set up.⁴ But, we may ask, how does it happen that the proper association is ever set up? Surely I do not first make the appropriate reaction entirely by chance. It is not credible that I should come to stretch my hand and that the apple should come to be where it is without there having been some causal connection between me and the apple. Perhaps I succeed by the method of trial and error. But though in the course of my experimenting I make many useless reactions and happen upon the proper one, my reactions, even the useless ones, are not made independently of the apple. There is a causal relation between me and the apple that results in my making reactions of a certain type. Indeed the structure of some organisms is such that this causal relation leads them to make reactions that fall within a very, very narrow range and to make such reactions persistently until the proper one is hit upon. It is just by chance that the organism at a given trial makes the proper reaction instead of one slightly different. For the previous causal relation between it and its object is the same whether it make the proper reaction or a slightly different one. Nevertheless it is not by chance that this organism is reacting towards its object and is not falling asleep. There is a causal relation between it and its object that accounts for the type of reaction it is making, if it does not fully account for the one successful reaction that it finally makes. So too when I cry "four" and the die that has been thrown falls with a four uppermost, it is by chance that I have cried "four" instead of "six." There is no previous causal relation between me and the die that explains why I have called just the number that has turned up. But there is a previous causal relation between me and the die that has resulted in my calling one of the numbers from one to six instead of calling "chair." When an organism experiments by the method of trial and error, consequently, there must have been a previous causal relation between it and its object to account for the type of

⁴ *Ibid.*, pp. 17, 18.

reaction it is making. Neither the concept of "chance" nor that of "trial and error" is a satisfactory explanation of the harmony between the object and the type of response the organism makes.

So far, then, there has in certain cases been a failure to segregate and describe that causal relation between organism and environment that has led on the one hand to an organism fitted for its environment and on the other hand to an environment fitted for the organism. In view of this failure, the concept of teleology has been brought forward as a satisfactory explanation. But what is the explanation offered by teleology? According to the doctrine of final causes there is a prevision of the harmonious situation to be arrived at that leads to the organism becoming the thing that it is, namely, a thing adapted to its environment. If we follow back the train of events leading to the organism as we know it, we shall come, it is said, to a point at which there is a desire to bring about the harmonious situation that finally results. Let us however not lose sight of our problem. The harmony between the organism and the environment forces us to believe that there is some communication between the series of events leading to the organism and the series of events leading to the environment. A conscious or unconscious purpose placed in or behind the series of events leading to the organism is not in itself such a connecting link. We require further to be shown how this purpose affects or is affected by the series of events leading to the environment. In short, the problem of describing the method in which the two series are linked together is still on our hands. It really makes no difference whether or not the series of events leading to the organism is causally determined. An indeterminism in the one series does not destroy our belief that there must be a connection between the two series to account for the harmony that results. For this harmony we seek a cause; and this cause can not lie in the one series, but must be a link between the two.

Consequently the theory that there is purpose at some point in the series of events leading to the organism offers us no help in our search for a connecting link. It neither challenges our belief that there must be such a link nor suggests to us what this link may be. The relevant argument for teleology, in fact, concerns only the one series, namely, the series of phenomena leading to the organism adapted to its environment. It leaves to one side the question as to what may be the connecting link that is an efficient cause of the harmony between the organism and the environment. For on the one hand, whether purpose exists or not, there must be a connection between the series of organic phenomena and the series of events in the environment. And on the other hand, until the nature of this link is known, no argument can be drawn from the fact that it exists

to prove either that there is or is not such a thing as purpose in the series of organic changes. Nor when we restrict ourselves to the one series of events, namely, that resulting in the adapted organism, do we find any necessary connection between questions of causality and the question whether purpose exists. We are here dealing only with the history of the organism. The question that arises with respect to causality is not the question how the organism comes to be adapted to its environment, for the cause of such an adaptation must be sought in a connecting link between the two. The question that arises here is whether one state in the life of an organism is determined by what has preceded and how. Now there is no necessary connection, I say, between this question and the question whether purpose exists. For though organic phenomena should be unpredictable, it does not follow that there is a purpose guiding the organism in its career. If organic phenomena are not subject to laws of causality, then we ought not seek an efficient cause of that which we find. Purpose, though it exists, can not have been an efficient cause, and so can not satisfy us in our vain search for such a cause. If, on the other hand, organic phenomena do point back to previous events in the history of the organism, with which events they are causally connected, then these previous events furnish the cause that we seek whether there be a purpose associated with them or not. The concept of purpose, in short, neither aids us in our search for a causal explanation of the harmony between organism and environment, nor hinders us in our search for causal relations between successive phenomena in the life of the organism. Purpose, then, is independent of cause, independent of it in the sense that arguments for teleology can be based upon conflicting theses as to the causal relations that obtain.

It is, in truth, upon analogy or upon a definition of purpose that the argument for design must be based. "It must be confessed," says Janet, "that if experience had not given us beforehand somewhere the type of the final cause, to all appearance we never could have invented this notion."⁵ We first attend to one series of phenomena, namely, the series that issues in my own actions. We find at a previous point in this series, or associated with it, a consciousness of the aim to be attained. We then attend to other series of phenomena, to the growth and reactions of organisms in general. And we conclude that since these series are so similar to the series we first investigated, there must likewise be a purpose in or associated with them. The argument for design, it is evident, can not get started unless there is admitted to be purpose in the series of events leading to my own actions. If it is denied that there is consciousness in

⁵ Janet, *Final Causes*, tr. by Affleck, p. 92.

or associated with this first series, then it can not be proved there is consciousness in or associated with any other series, no matter how similar. If, however, so much is admitted in the series of events leading to my own actions as a purpose objectively defined, then perhaps the thesis can be rendered plausible that there is the same sort of purpose in other series of organic phenomena. The same result can, of course, be obtained without recourse to analogy. For if purpose be defined in terms of the characteristics my actions and other organic phenomena have in common, the purposiveness of these phenomena follows directly from the definition. Now what is the similarity between me and other organic phenomena that might lead me to assume a consciousness in them if there is admitted to be a consciousness in me, or a purpose objectively defined in them if there is admitted to be such a purpose in me? The series of events leading to my actions and the series of events leading to other organic phenomena evince in common, it has been said, an adaptation to the future.⁶ The environment follows its line of development and the series of organic phenomena develops on its part to a point at which the organism is in harmony with the environment. But the organism is adapted to the object in its environment before that object is there. In other words, the series of organic changes reaches its conclusion before the organism is in contact with its object, that is to say, before the environment has reached a corresponding point in its development. Now this characteristic that my actions and other organic phenomena have in common may be a good basis for analogical reasoning. But this fact that one series reaches its conclusion before the other can not relieve us from the necessity of finding a connecting link between the two series to account for the final harmony between organism and environment. Besides evincing an adaptation to the future, organic phenomena have been said to have other characteristics in common. Organic phenomena, it has been said, are not subject to certain physical laws, such as the second law of thermodynamics. And it has been said, notably by Driesch, that organic phenomena are not causally determined, one by the other. Now these facts, and other facts that have been adduced, are all proper bases, if true, for an argument from analogy. But, let me repeat, the thesis that organic phenomena are not causally determined can not lead us directly to the belief that there is a purpose in this series of phenomena. It implies that there is no determining factor to account for organic development and can not lead us to seek such a determining factor in a purposive entity.

The characteristics my actions and other organic phenomena

⁶ Janet, *Final Causes*, translation by Affleck, p. xviii; Warren, *A Study of Purpose*, this JOURNAL, Vol. 13, p. 33.

have in common are no doubt sufficiently distinct to make possible a definition of purpose in terms of them. They are also sufficiently widespread and numerous to lend much force to an argument from analogy. Nevertheless they do not force upon us an absolute conviction that whatever we find in the case of my own actions exists in the case of other organic phenomena. They force upon us only a certain presumption that things alike in so many respects are probably also alike in others. Furthermore, the qualities that are carried over by analogy and presumed to exist in other organic phenomena can only be qualities that are admitted to exist in the case of my own actions. Within these limits the general form of the argument for teleology is simple and unassailable. However, to arrive at the conclusion that the purpose that is in or associated with the series of events leading to adaptive organic activity is of one sort rather than another, further argumentation is necessary. If this purpose is held to be an unconscious purpose, it must be shown that an unconscious purpose is not a contradiction in terms. If this purpose is held to be associated, not with the organic phenomena that immediately precede the adaptive response, but with a First Cause that initiates the whole series of organic phenomena, then it must be shown that this First Cause exists. If, finally, it is held that this purpose is not a quality of the organic phenomena we investigate, but is a non-temporal entity associated with these phenomena, then it must be shown that it is not impossible for a non-temporal entity to be related to a temporal one. These, however, are special questions that are not relevant to the general argument for a teleology of some sort. The simple thesis that there is a purpose in organic and perhaps in inorganic phenomena relies merely upon a description of the qualities the entities held to be purposive have in common and upon the assertion that purpose is a thing that is given in these qualities or that is to be inferred from them. It is a thesis that neither necessarily denies the existence of efficient causes nor offers a substitute for them.

When scientific men realize how limited in scope the argument for teleology is, they feel in many cases that the concept of purpose is harmless. They "accept purposive events as a specific class of natural processes"⁷ and make no further ado about them. Their attitude is that of a host who greets his guest, but then ignores him. Are final causes, however, to be ignored after they have been admitted? It was Leibniz, scientist as well as philosopher, who was particularly concerned that they should not be. "Final causes," he says, "are of service in physics, not only to make us admire the wisdom of God, which is the principal reason, but also for knowing

⁷ Warren, *A Study of Purpose*. This JOURNAL, Vol. 13, p. 6.

things and for managing them."⁸ Now there are several ways in which final causes may assist us in knowing things. If we assume that there is in a series of phenomenal events a purpose, nay a supremely intelligent purpose, we may then arrive at an hypothesis as to the manner in which this series of events is developing. It was in this manner that Leibniz arrived at an hypothesis as to the manner in which rays of light are conducted from one point to another. Such hypotheses must of course be tested by experiment before they are acknowledged to be satisfactory, yet the initiation of hypothesis is no mean element in the growth of knowledge. Indeed many of the scientific theories we now accept were, we must recognize, first suggested by teleological considerations. Again we may be said to be making use of final causes when we conclude from the occurrence of what are held to be purposive events that there is an environment to which these events are adapted. We may find the fossil remains of a dinosaur and conclude therefrom that there was an environment to which such a purposive organism was adapted. We may assume in the human body a desire to combat destructive bacteria and look in consequence for the manner in which such a purpose might be achieved. Such arguments that may be based upon the assumption that purpose exists are not at all unusual. And so we find that though the scientist may be rather shy of the concept of teleology, arguments that may be called teleological are neither useless nor unfamiliar in his domain. Final causes, if they exist, are no substitutes for efficient causes. Yet if they exist, the concept of purpose has a place in science as well as in philosophy.

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METHODOLOGICAL TELEOLOGY

IT may still be disputed whether the philosophic discovery of the Pragmatic Method has provided the world with a perennial source of new truths, but it is surely beyond dispute that it has stimulated its critics to an unceasing flow of new errors. The last of these which have seemed to me worthy of correction are contained in Professor Warbeke's article on "A Medieval Aspect of Pragmatism."¹

After echoing a number of old misconceptions about Pragmatism as χαμαιλέοντα καὶ σαθρῶς ἰδρυμένον Professor Warbeke proceeds to show that he has not yet succeeded in grasping that Pragmatism is primarily a method, not a dogma; a theory of knowledge, not a

⁸ Leibniz, Reply to Reflections found in the *Journal des Savants*. Duncan, *The Phil. Works of Leibniz*, 2d edition. p. 116.

¹ This JOURNAL, XVI., p. 207.

metaphysic. On the strength of this misapprehension he proceeds to argue that Pragmatism must assume there is inherent in reality a teleological constitution which guarantees satisfaction to human desires, and that this assumption is a medieval anachronism which accords ill with the pluralism and empiricism professed by pragmatists. "It is the logical implication of a doctrine which asserts the *ethical*² good of man (whether individually or collectively) to be the criterion (howsoever determined) of whether things exist or do not exist (Reality), and what their several relationships are as we apprehend them (Truth)," (p. 214) . . . and "it involves a teleological point of view for all truly known reality" (p. 215). In the course of this argument he states what he believes to be the assumptions made by pragmatism in its proof that its "theory in human *good*² is the index of all true insight" (p. 211), and among them that "all things *are*² so coordinated with the valuable interests of men that correct knowledge of any existence or event contributes to those interests; and negatively, that a representation of things which does not so contribute is contrary to fact" (p. 211). Pragmatism has also to burden itself, according to Professor Warbeke, with "existences, real things, and relationships among them," definite relationships between mental states and their objects, causal relationships, "definite qualitative characters in our mental life," *etc.* All these are to be regarded as no less "axiomatic" in pragmatism than "in any positive theory of knowledge."

Now a little reflection will show that this whole contention itself proceeds upon certain presuppositions which are, quite explicitly, repudiated by Pragmatism. It presupposes an unpragmatic logic and an unpragmatic metaphysic. Professor Warbeke's logic is still one which worships the Euclidean proof, and tries to start from axiomatic presuppositions in order to attain absolutely true conclusions. But to a pragmatic logic 'axioms' are always essentially postulates, and conclusions are only proved hypothetically, and always stand in need of empirical verification, a fact, of course, which debars them from attaining absolute truth. Professor Warbeke's metaphysic is still of the naive variety which imagines that absolute knowledge of reality can be taken for granted, and that all critical inquiry as to whether what is taken as real is truly so taken, can be ruled out of order. Naturally enough, therefore, he can not understand such conceptions as the 'making of truth' or of reality,³ nor grasp the essential connection between the enunciation of a 'truth' and the action which follows upon and tests it.

² Italics mine.

³ It is pretty clear that he does not refer to them because he does not see their relevance. In general, his references to me are inaccurate and somewhat

To one who understands pragmatism, however, all Professor Warbeke's presuppositions and contentions will seem a brood of misconceptions hatched out of a mare's nest. Such a one would not gaily start from an assumption that the reals which he may find it convenient to recognize in beginning a cognitive inquiry must be absolute and ultimate, but would regard them as provisional and relative to the state of his knowledge. Consequently he would be ready to modify or drop them as the inquiry progressed, and to substitute better alternatives. And as he would not have committed himself to begin with to the gratuitous assumption of intellectualism that the theoretic formulation of a problem and the action to be taken in consequence had nothing to do with each other, he would not imagine that whatever had to be recognized as real at the outset of his inquiry must of necessity remain so forever, and could not be reduced to unreality. Hence he would at most formulate his teleological postulate that 'things *may be* (not "are") so coordinated with interests of men that the truth about them may be valuable,' and this formulation might serve as a further illustration of the contention that all real judgments in ultimate analysis contain a reference to practise.

Now by this substitution of 'may be' for 'are' in the teleological postulate the pragmatist evidently reduces it from a metaphysical dogma to a methodological assumption. It no longer presupposes anything about the universe, not even that there is one, *i. e.*, that we can handle what we believe to be the real by applying this notion to it. It does not mean that he knows in advance of experience that the universe is going to be good, to grant him what he desires; it only means that he means to try to make the best of it—like the analogous assumption that reality is plastic.⁴ And to give himself, and it, a chance, he means to act *as if* he could get what he wants. How else could he proceed? How else could he be encouraged to experiment and persevere? What more modest postulate could he make? The methodological optimism of his heuristic teleology does not repel any answer the real may give, short of utter pessimism; and an unmitigated series of cognitive failures might compel even to that.

superficial. Thus he attributes to me (p. 208) a demand for the 'abrogation' of the law of contradiction which actually occurs in an exposition of Hegel! And I have surely protested often and elaborately enough against the simple identification of the 'true' and the 'useful' (*e. g.*, *Mind*, Nos. 84, 88) not to deserve to have a condensation like "'true' simply means 'useful'" foisted upon me (p. 210). On the other hand the proposition that *the useless is false*, which Professor Warbeke declares to be only *implied* in the passage he presumably refers to (*Humanism*, p. 38), is actually in the text, and is explicitly shown to follow formally from *all truth is useful*.

⁴ Cf. *Personal Idealism*, p. 61.

It is evident therefore that nothing metaphysical is implied in the pragmatist's interpretation of either action upon, or judgment about, reality. The "teleological constitution" involved in them is only a methodological assumption, and is, moreover, inevitable on *any* view of the world. For methodological teleology only formulates a little more definitely an indispensable postulate of the knowableness of the world, begging no question and presupposing no answer. For the mind to know the world it has to be supposed that the two are to some extent and in some sense commensurable. If there is *no* commensurability between the nature of the real and human faculty, the enterprise of knowing is clearly vain and doomed to failure. Skepticism is the only theoretic, and pessimism the only practical, outcome of philosophy. We must therefore *hope* for commensurability, and assume it in all our methods of investigation. In point of fact we always do, and the difference between teleological and causal explanation is not one of principle. *Both* are *ex analogia hominis*, and postulate a sort of commensurability. If then there is *any* commensurability, however slight, knowledge is possible and attainable in varying degrees. And if postulation is in use and in order in any case, why should we stint ourselves? We naturally hope for the utmost; if our claim to that can be made good, the world will be rendered more knowable and congenial than it would otherwise be. And as it is a question of postulates there is no sense in diffidence. We may as well try for a maximum as for a minimum. If it is a fact that the mind works teleologically—and no one ventures to deny this outright—it follows that we shall find the world most knowable if it is assumed to work similarly, or at least in such a way as to be adequately representable and controllable by our teleological procedure. In our dealings with nature, even if we suppose its reactions to be all determined in advance by its mechanical character, it costs no more to ask for much than for little; we may as well therefore ask for as much as we want, lest by trying for too little we fall short of getting all we might otherwise attain.

In this whole procedure, however, there is nothing peculiar to humanism. It differs from the other philosophies only in being more fully conscious of the advantages, and franker about the risks, of their common method. It is not deceived into taking a methodological assumption for an *a priori* truth. It is not deluded into expecting nature to be in duty bound to submit to every 'necessity of thought,' but knows that it may have to fight hard and long to make good its postulates. It is not restricted to the contemplations of pure thought, but feels free to experiment and act and change the real. Why then should it scruple to make a postulate which is

universal and legitimate? To refuse would merely paralyze both thought and action without benefit to either. To assent is nothing more than to express willingness to investigate a vital problem.

It is a further mistake of Professor Warbeke's to ascribe a metaphysical intention to the doctrine of the connection between the Real, the True and the Good, and of the supremacy of the Good. For that too is not a dogma. In the "Ethical Basis of Metaphysics" the meaning intended, and, I should have thought, expressed with unmistakable clearness, was epistemological, and concerned with the 'priority of the *epistemological* question over the *ontological*.'⁵ This argument rests upon a very obvious observation, and refers to a very simple situation. The observation is that 'truths' are *values*, real or supposed; the situation is that every claim to know logically implies that the truth-claim enunciated is *better* than any alternative that could have been alleged. In raising therefore a question of 'fact' or of 'knowledge,' we are inevitably raising a question of 'value,' which conditions the other two.⁶ The only point about which there can be any difficulty is in perceiving that this is a logical implication, even when it is not a psychological fact. Whenever several alternatives have been considered before the judgment was enunciated, this claim to superior value is obviously a plain psychical fact; but when no alternatives were entertained and present to the mind, the value remains implicit. It may however at once be brought to the surface by challenging the judgment and alleging a better. Its maker must then either establish its superiority or withdraw it. Hence a claim to superior value must be conceived as logically implicit in it from the first. And so the doctrine of the control of cognition by the notion of Good is an easy corollary from the psychological law that every (real) judgment is always the *best* its maker could conceive when he made it.⁷

'Good,' however, is to be taken in its wider or teleological sense, not in the narrower sense in which it is specifically opposed to 'evil,' in *modern* ethics. To have failed to see this is a third error of Professor Warbeke's, and perhaps the least excusable. For not only had it been carefully explained, with a reference to Plato, that the Good meant "the conception of a final systematization of our purposes,"⁸ but the double antithesis of 'good' in English to 'bad'

⁵ *Humanism*, p. 9.

⁶ *Humanism*, p. 10.

⁷ This law has only been obscured by the fondness of philosophers, and especially of logicians, for 'paper' judgments, which are only verbal forms, and convey no actual meaning.

⁸ *Humanism*, p. 11. Cf. similar definitions in *Studies in Humanism*, pp. 6, 152, 154, 191, and *Formal Logic*, p. 2.

and to 'evil,' might surely have been a sufficient warning against confusing these two senses of 'good.' Nevertheless Professor Warbeke writes throughout as if 'good' could mean nothing but "the physical wellbeing of humans," and girds at the inconsistency of pragmatists in recognizing a variety of human goods and their inability (or unwillingness ?) to set up "a typical *homo* whose good might serve as a basis for reference."⁹

This error I may perhaps have facilitated by recognizing as ethical also the antithesis of *good-and-bad*, in order to accommodate the Greeks, to whom that of *good-and-evil* was foreign; so it may be my duty to correct it. Now of course the teleological valuation *good-or-bad* refers primarily to the valuations of *any one* who entertains a purpose, and is relative to him. In other words, any one has a right to call 'good' whatever suits him, and 'bad' what doesn't, and every one freely exercises this right. Both are so far personal value-judgments, or *value-claims*. There is no reason whatever, therefore, to expect them to coincide or to be other than plural, multifarious, 'subjective,' incompatible, and variable. The question of standardizing these individual judgments, and rendering them 'objective' and 'universally valid,' comes later. It is a question of the *ideal*, and of getting all to accept the same ideal. It is not a question that concerns the scientific description of human nature. For to science, as to common sense, it is abundantly clear that as yet there is *no* agreement or concordance about the ends men seek and the good they covet—unless we cynically say that all covet other goods than their own. Any one who in the year of grace 1919 can babble about such a concord must have been dreaming for the past five years in Utopia or Cloudeuckoodom. If the human pursuit of ends is to be unified and to end in universal harmony, that end can not be 'presupposed'; it has still to be achieved. What the ultimate ideal is to be will have to be fought out, and may well take seven wars worse than the last, or even seventy times seven. As for "the typical *homo*" whose good is to be the measure of all things and who is to lay down the law for all, it is evident that he would be a superman of the most tyrannic sort. Actual human nature would most certainly rebel so soon as it was attempted to control it by any such conception. But why should it be necessary to anticipate these future troubles in order to recognize that every one naturally judges his experiences by reference to his own ends and standards of value? Truly when pragmatism is hauled over the coals for recognizing so plain a fact one can not but agree with Dr. Rashdall that "in philosophical criticism one man may steal a horse while the other may not look over the fence"! F. C. S. SCHILLER.

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⁹ Pp. 208, 210. Cf. also the quotations italicized above.

REVIEWS AND ABSTRACTS OF LITERATURE

Forced Movements, Tropisms, and Animal Conduct. By JACQUES LOEB. Philadelphia and London: J. B. Lippincott Company. 1918. Pp. 209.

This is the first volume of a series of monographs on experimental biology, of which eleven others, by experts in various subdivisions of the field, are in preparation; and presents the "tropism theory" in its most recent developments. The chapters which contain most new material deal with reactions to light. The bibliography of the tropism now comprises about five hundred and sixty titles.

The general outline of the theory is familiar to most readers of this JOURNAL. It holds that the reactions of both plants and animals to stimulation are determined by the comparative intensity with which the stimulus acts upon symmetrical points of the organism. An animal or plant which moves towards a certain stimulus does so because the muscles on the more stimulated side contract more strongly, thus turning the organism head on to the stimulus; an animal or plant that moves away from a stimulus does so because the muscles on the less stimulated side contract more strongly, thus turning the organism "tail on" to the stimulus. The cause of these physiological effects through the stimulation of symmetrical points is of course still a matter of hypothesis, but is supposed to be purely physico-chemical.

In his investigations and his published discussions, it is unnecessary to say, Professor Loeb shows the qualities and defects of one who has thoroughly made up his mind. It is not for the present reviewer to criticize his experimental investigations, creative and pioneer researches in a difficult field. But he writes always with his opponents in mind, and it sometimes seems as though, like most fighters, he grouped them rather indiscriminately and regarded neutrals as enemies. He naturally, of course, opposes vitalists, believers in free-will, and authorities who like Jennings, though neither vitalists nor libertarians, do not regard oriented reactions as the fundamental type of behavior in living organisms.

Since the limits of a review forbid a full discussion of the tropism theory in its relation to these other positions, the reviewer will present merely certain detached thoughts which have been aroused by reading "Forced Movements."

First, an old adversary of Professor Loeb's, attached, if I remember rightly, in his earliest articles thirty or more years ago, if the person who says that an animal goes towards a stimulus because it gets pleasure from the stimulus. Now as a matter of fact this person may be a determinist and a mechanist; he may welcome

demonstration that the animal in question is forced by the physico-chemical effect of the stimulus on symmetrical points to go towards it, and still he may believe that pleasure, as an epiphenomenon, is present in the animal's consciousness, and may use the introspective term because it is convenient. Should Professor Loeb condemn him? In Chapter XIX. of the present book the more complicated behavior of men is explained as due to the orienting influence not of present stimuli, but of memory images. I submit that "memory image" is an introspective term. "Conditioned reflex," indeed, is not; but hypotheses as to the functioning of the brain are not yet adequate to explain memory images fully in terms of conditioned reflexes.

Secondly, Professor Loeb has for many years maintained that the heliotropism of plants is identical with that of animals. The demonstration that the blue rays are most effective for plants and the yellow-green rays for animals he now meets with evidence to indicate that for some plants the yellow-green rays are more effective and for some animals the blue rays are more effective. But why is it important to him that plants and animals shall react to different wave-lengths in the same way? It would not contradict the tropism theory if their physico-chemical processes were sufficiently unlike to be excited in different degrees by the same wave-length. In urging so strongly the identity of plant and animal heliotropisms, Professor Loeb seems to have had in mind the person who, admitting that plants are unconscious, would be forced by this identity to consider animals also unconscious in their light responses. Now clearly, if this conclusion were reached, it would be on the basis of an insecure analogy. And it is interesting, as an illustration of the effect of a controversial attitude, to find Professor Loeb condemning an analogy of this type, used by Hess, who argues that because to certain animals the distribution of effectiveness of different wave-lengths is like that of color-blind human beings, therefore these animals are color-blind. Professor Loeb points out, as indeed the present reviewer had done (*The Animal Mind*, second edition, page 157), that the conclusion does not follow, since the physico-chemical processes may be different even though the distribution of spectral effectiveness is the same: a type of argument which would have relieved him from the need of maintaining so long the identity of heliotropism in animals and plants.

There is doubt in the reviewer's mind, finally, as to how much the tropism theory as such contributes to the understanding of human behavior. Anything that either furthers or opposes a physico-chemical explanation of such behavior is obviously a great contribution. But the principle of *forced orientation*, which is the essential point of the tropistic hypothesis, seems to be so complicated and over-

laid by conditioned reflexes and "memory images," whatever the latter may be as physico-chemical phenomena, that it at no period in the human individual's life really comes into play. The infant's behavior, so far as orientation to symmetrically acting stimuli is concerned, appears to be full of inaccuracies that have to be gradually eliminated. Phylogenetically it may have developed from the behavior of lower organisms with clear and unmistakable tropisms, but one has to deduce the probability of this from one's previously existing belief in good old-fashioned mechanistic determinism: one finds no new support for such determinism from the tropism theory as applied to human conduct.

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Outline of Social Philosophy. J. S. MACKENSIE. New York: The Macmillan Co.

This book is an expansion of a short course or lectures delivered at the London School of Economics and Political Science. It seems to the reviewer to be a credit both to the school and the author. Nothing is quite so important in the discussions of social and political life as knowing what after all one is talking about, *i. e.*, what is the meaning of the words one is compelled to use. The words in these matters stand for concepts that are anything but clear, concepts that by their very nature are confused and confusing and not only to the lay mind. To make this evident to the student, to teach him to ask himself even in his private thinking, what he means precisely by his terms is to render a great service. A mastery of the contents of this little treatise would be of great value alike to student and teacher.

From the very nature of the task undertaken it is a philosophy, "an effort to view particular truths and facts in relation to a whole within which they are included." And as a *social* philosophy it "seeks to interpret the significance of human life with reference to that unity."

The author acknowledges his obligation in particular to Thomas Hill Green, and Bernard Bosanquet, and so of necessity to Hegel. But as they have modified Hegel, he in turn has modified their teaching. The error in the Hegelian, which is charged by some with the iniquity of the world war, seems to have been corrected by the author, while preserving that fundamental in human life which was misinterpreted by Hegel and not altogether rightly understood by his Oxford disciples. In the fierce light of the Great War some things are more manifest than they were before. The empirical practical-mindedness of England tends to correct the absolute of

German thought. In both community is the basis. In the one growing up from within by natural process in practical experiments; in the other from without put down upon according to an external idea. In the one the idea is an hypothesis for experiment and modification according to results. In the other correct logical inference from the idea, rather than practical consequence dominates. Mackenzie's book, in spite of his remote intellectual forbears, is English-minded.

The author starts with a consideration of human nature as by its inborn constitution pushing toward community life. In this vast movement of humanity appear the various modes of association, the social institutions that arise in the national order, family, school or education, industry, state, justice. This is followed by discussion of institutions that transcend national boundaries and tend toward the inevitable goal of a world order. They are international morality, law, trade, and of a different character, religion and culture. The essential nature of each of these institutions and their interrelation in the unity or community is exhibited. Gilbert Chesterton's saying: "the important thing about a man is his philosophy" is nowhere more true than in the realm of social philosophy. To have such a philosophy is corrective of the pettiness of the private man, of the narrow-mindedness of specialist in science, and of the partisan and patriot in government. It is the absence of such a comprehensive view which a social philosophy would give them, that makes certain senators partisan politicians instead of statesmen of national and international wisdom and reputation. Such men are anarchists in high places resisting community through dimness of eye and narrowness of sympathy, putting personal, party, and national advantage before human welfare, and inviting chaos instead of organizing it. Whether a man has in such a case a social philosophy, and of what sort it is, is the important thing about him.

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JOURNALS AND NEW BOOKS

REVUE DE MÉTAPHYSIQUE ET DE MORALE. September-December, 1918. *La réforme de Luther et les problèmes de la culture présente* (pp. 533-573): C. A. BERNOUILLI.—"The ecclesiastic schism of Luther and his followers has been at bottom a strife for the unity of the spiritual existence of Europe. . . . Thus in spite of appearances, it is an analogous crisis that Europe is undergoing at present." *Pourquoi Luther n'a-t-il créé qu'un christianisme allemand?* (pp. 575-612): IMBART DE LA TOUR.—"Did the German

spirit create Luther or Luther the German spirit? . . . Never were religion and country more closely welded." *Le sens de la Révolution religieuse et morale accomplie par Luther* (pp. 613-645): E. EHRHARDT. — Luther engaged in his work of reform without preconceived plan and without even intending to be a reformer. He was led only by his personal experiences of a specifically religious order. *Réforme et préréforme. Jacques Lefèvre d'Étaples* (pp. 647-667): N. WEISS. — An account of a French reformer prior to Luther and of influence on the career of Calvin. *La prédestination d'après Calvin* (pp. 669-705): H. BOIS. — Predestination is not exclusively Calvinistic, but a dogma common to all the reformation. However, protestant thought "is obliged to traverse the Christianity of Calvin to better grasp in its purity the simplicity and profundity of the Christianity of Jesus Christ." *Note additionnelle sur la Réforme française. Les Apôtres de la tolérance* (pp. 707-718): F. BUISSON. — A study of religious ideas before Calvin, against him in his day, and after him that triumphed with the revolution of 1789. *Le protestantisme en Angleterre* (pp. 719-741): F. W. WATSON. — An attempt to define the meaning in which the term protestant Church of England is used by the English through an historical study. *La marche du courant calvinisme en Grande Brétagne* (pp. 743-767): P. FARGUES. — The fundamental principle, that of free examination, has been enlarged little by little and adapted itself to the demands of science and of social life. *Les Anabaptistes* (pp. 769-805): F. PALMER. — The Anabaptists, as a by-product of Protestantism, are significant as introducing the idea of democracy. *Calvin et l'Entente. De Wilson à Calvin* (pp. 807-840): F. DOUMERGUE. — A presentation of documentary evidence that Calvin is the founder of modern liberty. *Les deux Réformes: le Luthéranisme en Allemagne. Le calvinisme dans les pays de langue anglaise* (pp. 841-891): J. CHEVALIER. — An attempt to show the difference in these reforms which make the one culminate in Prussianism and the other in ideas suitable to English-speaking peoples. *Les aspects religieux de la guerre* (pp. 893-921): E. VERMEIL. — The Anglo-Saxons and the French require more intimate organization, and the organizing power of religion should be an object of reflection to both Protestants and Catholics among the allies. *L'esprit conservateur et l'esprit révolutionnaire dans le luthéranisme* (pp. 923-956): CH. ANDLER. — Luther represented a revolution in faith and in the Church combined with a political conservatism.

Jones, D. Ambrose. *Philosophic Thought and Religion*. New York: Macmillan Co. 1919. Pp. 60. \$0.80.

Solovyof, Vladimir. *The Justification of the Good: an essay on moral philosophy*. Translated by Nathalie A. Duddington. New York: Macmillan Co. 1918. Pp. lxiii + 475. \$4.50.

NOTES AND NEWS

Mind for July contains an interesting appreciation of the late John Cook Wilson, Wykeham Professor of Logic in Oxford since 1889, written by H. A. Pritchard. Professor Wilson was born in 1849, and entered Balliol in 1868. From that time until his death in August, 1915, he was connected in one capacity or another with Oxford University, being Fellow of Oriel College from 1873 until 1901 and Fellow of New College from the latter date until his death. His published writings consist of a few books and pamphlets and numerous contributions to scientific periodicals, most of them dealing with mathematical subjects or with problems in connection with the text and interpretation of the works of Plato and Aristotle.

We quote the following paragraphs from Mr. Pritchard's article:

"The point of departure of Cook Wilson's views lay in his unwavering conviction of the truth of mathematics. In mathematics we have, without real possibility of question, an instance of knowledge; we are certain, we *know*. Those who talk of non-Euclidean spaces are using mere words to which no thought corresponds. It is impossible to conceive hyperbolic or elliptic space. The fundamental objection which confronts those who suppose themselves able to conceive such spaces lies in the fact that the corresponding figures contradict our faculty of construction; we can not, for instance, imagine straight the so-called straight lines of which they speak, and to suppose, as they do, that this does not matter is erroneous and due to an illusion about the function of imagination in geometry. They can be refuted on their own ground, since it can be shown that they use only the conception of *Euclidean* space in the hypothetical reasoning in which their theories about such spaces consist, and it is a mere mistake to suppose that a train of hypothetical argument will never lead to a contradiction of a certain kind, because up to a given point it has not done so.

"In consequence the skepticism inherent in the philosophy of those who follow the metageometricians was wholly alien to him. The coherence theory of truth, again, was according to him not only impotent to lead to any positive result but was vitiated from the start by the existence of mathematics, where we presuppose that no future experience and no further advance either in mathematics

itself or in other departments of knowledge can contradict the knowledge we already have. (He was fond of insisting that in that reasoning which is knowing we presuppose that the knowledge which constitutes the premises can not be modified, in the sense of contradicted, by any future experience.) Equally alien to him was the position represented in Mr. Bradley's *Appearance and Reality*. Neither knowledge nor reality admitted of degrees. Reflection on our experience may and does give rise to puzzles in plenty, but the result is not to show that our fundamental notions about the world are inherently self-contradictory; where such contradictions are alleged, the cause lies in some fallacy, usually simple, in which we have been unconsciously involved. On the contrary, space, time, bodies, minds (and when we reflect we see that we really do know what we mean by these terms) are real and in no sense 'appearance.' In fact, his outlook might be described as essentially 'objective.' No student who followed and accepted the workings of his mind would expect the study of philosophy to transform his unreflective view of the world into something unrecognizably different. It was the business of philosophy to study the presuppositions of the sciences, but the man of science had no need to fear that, as a result, the sciences would be shown to be illusion or even to require revision in detail. Philosophy could add to the knowledge which was science by contributing the solution of its own problems, but it could not destroy or interfere with scientific knowledge."

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THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE ANTICIPATORY ASPECT OF CONSCIOUSNESS

IN studying the psychological categories which are concerned with the content of consciousness we are quite prone to emphasize their retrospective aspect under such captions as memory and association and to refer the anticipatory aspect of consciousness to the conative categories. In the following paragraphs I shall attempt to indicate the possible fruitfulness of considering more prominently the anticipatory aspect of the cognitive categories.

The reflex arc constitutes a serviceable mode of representation for the simplest types of coordination, but we drop it as soon as we begin to talk about the higher cognitive categories except for such recondite references to it as in the law of ideomotor action. If we consider consciousness as in its essence a process of selecting an adaptive response it becomes a function which mediates the causal relationship between the stimulus and the adaptive response. It must of course be admitted that while following this mode of attack we are primarily concerned with what consciousness *does*, to the partial exclusion of that other question as to what consciousness *is* to the actor. In the simplest type of coordination, the reflex, we have a response, usually adaptive, which is characterized by the absence of any conscious mediating factor between the stimulus and the response. We may for convenience designate as circuits the more complex arcs which embody conscious stages.

That the response may serve either as a new stimulus or as a modifier of the stimulus is well recognized. But we may legitimately separate out the passage of causal relationship from the stimulus to the response and designate it psychologically as an act. The term act as so used refers, then, not to the final overt motor expression, nor to the immediate attitudinal antecedents of the overt response, but to the whole circuit by which the stimulus becomes defined into the response.

The law of dynamogenesis may be stated in connection with the reflex circuit by saying that the function of the circuit is an irreversible process since it always takes place in one direction and never in the reverse direction. To be sure, a complex cortical circuit which

is shunted with a reflex arc, may modify the latter and give the illusion of reversibility, but the circuit as well as its parts function irreversibly.

It is a commonplace to assert that consciousness appears only when it is necessary to select one out of several courses of action, and that as long as there is only a single coordination possible the adaptive response is to that extent unconscious. This fact may be restated in terms of the reflex circuit by saying that if the coordination between the stimulus and the response is adequately provided for by the structure of the nervous system we have an unconscious bond between the two ends of the arc. Now let the stimulus be reacted to by either one of two possible responses. These responses are not disparate throughout their course. They are identical in the sensorium, but issue in the motorium as distinct. Now, there must be some stage in the circuit at which they become distinct and in order that the response be intelligent it is necessary that the division point be conscious. If the act becomes conscious at a stage subsequent to the division point, the overt response is not intelligent. The act must become conscious at least as early as the division point between the acts to be selected from. Suppose that one is opening a door which opens out instead of in as was expected. In this case it may be necessary to have conscious that part of the act at which it may be particularized as either "in" or "out." The division point becomes conscious as the motor attitude "enter," and this stage of the circuit becomes consciously particularized into the specific overt act "out." *Every intelligent response constitutes the conclusion of an act, in which an earlier incomplete and unparticularized stage was conscious.*

Development or intelligence is indicated by the power to render conscious earlier and earlier stages of the reflex circuit. A dog is undoubtedly capable of being conscious of later but unparticularized stages of the act. Thus the dog has a conscious motor attitude of approaching his master in response to a characteristic whistle, but it is a conscious motor attitude which requires further conscious particularization in running to the right or to the left, and in avoiding intervening obstacles. The motor attitude does not always particularize itself in the same manner. A motor attitude constitutes a late conscious stage of the circuit in rather close proximity to the final particularization in the overt act. Now as the circuit becomes conscious at an earlier stage it marks an advance in intelligence. *In fact, we may define intelligence as the remoteness from the overt act at which the reflex circuit becomes conscious.* The course of the excitation from the stimulus through unconscious and conscious stages

toward its overt completion is a process of delimiting the stimulation.

Habits and reflexes involve the passage of the stimulation in an unconscious manner from the stimulus to the response. *A higher order habit (mental habit) is the unconscious passage of the excitation over one division point, which, however, necessitates further conscious particularization before it completes itself in the overt act.* Thus, the adaptive response to an insulting stimulus may particularize itself in the form of the habitual motor attitude of courtesy or discourtesy. But even when the act has particularized itself in one or the other, it requires still further particularization before reaching its overt completion in the vocal cords or the fist. Now if the higher order habit of courtesy has been firmly established, the excitation will pass *unconsciously* over the first division point and will become conscious as the motor attitude of courtesy. It may, when so far developed, be *consciously* particularized by issuing in the vocal gesture "yes" or "no," or in the inhibition of silence. This form of habitual coordination is properly designated as of higher order, as contrasted with simple habit, because it requires what the simple habit does not require, namely, conscious completion before reaching overt expression. Both involve the unconscious passage over a division point which in former repetitions was conscious, but that of the higher order habit is more remote from the overt act.

In the same manner an instinct is an innate tendency to assume a motor attitude which requires conscious particularization before it becomes an overt response. If the instinctive coordination is so inflexible as to require no conscious selection it is no longer an instinct. It is then either a simple reflex or a chain reflex. *Every instinctive act is voluntary in its transition from the conscious instinctive motor attitude to the final overt act, but it is unconscious in the stages preceding the motor attitude.* The instinctive act is often rational in so far as it has been particularized by conscious selection of the means wherewith to satisfy the instinctive attitude in its craving for an immediate end. Hence there is no sharp line of demarcation between instinctive acts and rational acts except in the origin of their motivation. The instinct is differentiated from the higher order habit only in the origin of the neural coordination. The analogy is similar to that between the simple reflex and the simple habit.

If we consider the reflex circuit as becoming conscious at stages which are successively more and more remote from the overt act we have the crucial mark of intelligence. The intelligent coordination is one in which the conscious division points are relatively remote

from the overt act. If this be true the most intelligent coordination should be one in which the division points become conscious as early in the act as the sensorium.

The act does not become conscious until it strikes a problematic fork in the road. Then it does become conscious. *If the conscious division point is sufficiently remote from the overt stage so as to fail to be directly identifiable with it, this conscious division point is an idea or a concept.* "To have an idea" is concomitant with the rendering conscious of an unfinished act while it is still unfinished. Thus the idea Jackson Park is a conscious incomplete act which may continue to particularize itself in some such immediately detailed overt completion as diving into the lake. This does not imply that the idea is necessarily consciously anticipatory. To be sure, it does functionally anticipate its completion but the anticipation, as such, need not be conscious in the cognitive psychosis.

If the particularization of the act becomes conscious not only before it symbolizes a detailed overt act, but before it is detailed enough to symbolize individual experience, it is a concept. Thus the concept "lamp" is the conscious symbol of an unfinished act. By the law of ideomotor action it tends to particularize itself. Now, intellectual training consists psychologically largely in acquiring the ability to inhibit ideomotor action. Most subjects are unable to retain a concept as such. The symbol immediately flows over into some of its more particularized forms. The transition from the concept to the idea does not involve any crossing of a sharp line of demarcation. The distinction between the concept and the idea is to be found not in the momentary psychosis but rather in the subsequent psychoses.

The concept symbolizes the unfinished act at a stage when it is still impersonal. As soon as it reaches the stage at which it symbolizes the actor's own personal experience it partakes more of what we usually call an idea. Thus the concept "lamp" is quite impersonal in its implication but if it makes the actor think of his own experience with a lamp he has sufficiently particularized the act to anticipate a personally characteristic response and it is no longer a concept in the strict sense of the term. It must not be forgotten that a concept can by definition be particularized in any one of several directions. Otherwise it would never be conscious. Thus my concept "dog" is an attitude of readiness to select a more detailed response from a class of responses. It is an unfinished act which may presently call for the detailed response "mad dog" or "nice dog" as the case may be. *There are, however, no ultimate differentia in the momentary consciousness for the concept. It can only be proved to have been a concept after the act.*

While entertaining such concepts as benevolence, death, satire, speed, cleanliness, *etc.*, the actor is not himself consciously involved. The act is too early in its development to have become personal. It is not detailed enough to precipitate concrete experience without further conscious definition. When the concept has flowed over into the idea, the act has thereby become personal. If the concept "benevolence" defines itself by the memorial reinstatement of seeing a pedestrian place a nickel in a beggar's tin cup, it has become an idea which is symbolic of concrete personal experience even though the actor himself is not mentally reacting to the tin cup.

It goes without saying that some concepts are so far removed from the overt act that they require conscious definition into simpler concepts which in turn define themselves as ideas and responses. Such a concept is that of acceleration which is a derivative from the more immediate concept speed. *Derivative concepts such as acceleration, conduct, organism, thing, never function by being derived but always by being defined into more motorially significant concepts.*

Thus the four above mentioned derivative concepts might define themselves respectively into the simpler concepts speed, tact, quadruped, and eraser. The latter represent stages in the circuit adjacent to the motorium whereas the higher order concepts represent the more loosely defined unfinished acts.

To summarize, the concept and the idea are differentiated by the fact that the concept is the ideomotor antecedent of the idea, and that the transition involves the process of making the concept stage of the circuit sufficiently particularized to be personally concrete.

To guard against possible misunderstanding as to what is here meant by the development of the act it should perhaps be made clear that what is here referred to as early and late stages of the act is not necessarily synonymous with anatomical succession in the spinal cord and cortex. A concept of the very highest order may be neurally quite simple although it has the potentiality of defining itself into any one of a large number of ramifications. Neurally the early and late stages may both be cortical and either may be neurally more complex than the other, but from the standpoint of the history of the act in which the concept functions, it constitutes a stage in the process of rendering overtly adaptable the conscious division points in the momentary psychosis.

Finally, when the act becomes conscious as early as in the sensorium we have the highest type of coordination of which we are capable. It goes without saying that there is a far cry in mental development from selectively reacting to sensations to the inhibition

of the interpretative ideomotor function of perception. This inhibition holds the sensation as such in suspense and it is therefore a difficult intellectual feat. The locomotive engineer who responds selectively to red and green signals probably never stops to have the conscious psychosis "redness." The ideomotor tendency of perception slides over the sensorial division point of redness and renders it unconscious. It becomes conscious as a more or less particularized "red signal" with the appropriate motor attitude. The ability to entertain consciously a sensation quality as such, marks a higher stage of intellectual development than the ability to use concepts and ideas. This is not inconsistent with the generally admitted fact that adults seldom, if ever, have conscious sensations, but we would deny a similar insinuation concerning our ideas. If this notion concerning the cognitive categories is at all adequate it might perhaps be more logical to discuss sensation as the last chapter in our text-books rather than as the conventional first.

So far we have discussed some of the typical stages of the reflex circuit and given to these stages their appropriate names. It appears that the cognitive categories are all of them stages in the circuit. A stage in the circuit is not dynamic and neither are the cognitive categories. If we consider the circuit in action we are concerned not with the momentary psychosis or stage but with the passage of the excitation from one stage to a succeeding stage. The first part of the circuit is always unconscious. It becomes conscious sooner or later unless it be a reflex or a simple habit. *The transition of the act from the unconscious to the conscious phase of the circuit constitutes attention. When the transition from one conscious stage to a subsequent more defined stage of the circuit becomes conscious we have the essence of judgment.* The most rudimentary form of judgment is the consciousness of meaning in which one stage of the circuit vaguely anticipates its particularization toward the overt act. *When the process of defining the act has conscious beginning and end points, the transition from one to the other is a judgment in which the end points of the conscious phase constitute the two terms.* Language often reverses the psychological order of the terms into the order of causal relationship. Thus the judgment "the fire is hot" may psychologically have been derived from the idea "hot" which particularizes itself into "hot-fire," thus causing the appropriate reaction away from the fireplace. *Every judgment can be interpreted as the transition of a conscious stage of the circuit to a more defined conscious stage in the course of the excitation toward its overt completion.*

In the realm of affection we may also utilize the reflex circuit as

an explanatory principle. *When the furtherance and appetite or the hindrance and aversion become conscious in or near the motorium we have primitive feeling psychoses of like and dislike.* Like and dislike are motor attitudes which are generally quite concrete and too particularized to involve any idea of the self. In fact the like and dislike psychoses are conscious stages which assume a preceding unconscious passage of the act over the idea-stage of the circuit. Animals are capable of entertaining conscious likes and dislikes without the consciousness of the self since these psychoses appear as motor attitudes toward concrete objects of the environment. These attitudes are sufficiently developed to precipitate quite immediately into overt responses of appetite and aversion.

When the furtherance-hindrance becomes conscious as early as the idea-stage of the circuit it involves the self and it constitutes in this phase an emotion. The emotion is of course subject to the universal ideomotor tendency to particularize itself in the instinctive response. The emotion with its self-relations is necessarily an unfinished act, but the notion of the self can not possibly be involved in the particularized impulse.

The furtherance-hindrance can not become conscious in the concept-stage of the circuit since furtherance and hindrance are necessarily personal and the concept is impersonal. But just as the concept is an impersonal conscious division point leading to the idea which directly involves the self, or the expected experience of the actor, so the furtherance and hindrance may be consciously symbolized in the concept stage on its way toward the idea-stage, or emotion, at which the concrete particularized experience of the actor is involved. *When the furtherance-hindrance is consciously symbolized in the conceptual stage of the circuit we have the esthetic psychosis.* The ideomotor tendency of the esthetic psychosis leads to the concrete emotion, but if this ideomotor tendency is not inhibited the esthetic psychosis blends into a personal sentimental or emotional psychosis. The customary description of a "lost self" in the esthetic psychosis should be modified so as to indicate a self in the process of being formed. But in order to retain the esthetic psychosis as such, the concrete self must not be allowed the opportunity of being formed. When we speak of the enlarged self in the esthetic psychosis we are concerned with the same type of generalization of the self as is involved in the "enlargement" of particulars into concepts. We have described the universal, not as retrogressively composed of particulars, but we have been considering the universal as a step in the ever present process of defining the particular.

The apparent inconsistency of disagreeable emotional states de-

picted in the agreeable esthetic psychosis is perhaps removed if we think of the esthetic psychosis as simply symbolizing the emotion without forcing the percipient to assume it. The esthetic psychosis is on the same impersonal and unfinished stage of the circuit as the concept. The esthetic experience is a rudimentary form of judgment involving the consciousness of emotional meaning.

This doctrine of the unfinished act, according to which we have been here considering some of the psychological categories may be briefly summarized in the assertion that *every psychosis is a stage in particularizing the excitation on its course toward overt completion*. The higher and lower cognitive functions are differentiated by the fact that the former are the functional unparticularized antecedents of the latter. *Conation and cognition are differentiated in that the conscious stage constitutes a cognitive psychosis whereas the conscious passage from one stage to its more defined subsequent stage constitutes conation*. Hence conative psychoses can not be entertained in the absence of cognition but the reverse is theoretically possible.

It has not, of course, been the intention to disregard the memorial or retrospective *derivation* of any psychosis. The point of particular emphasis is that every psychosis actually *is* an unfinished act in the process of being defined into an overt response.

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RELATIONS BETWEEN RELATIONS.

RECENTLY I picked up a review written in a foreign tongue, and my attention was caught by familiar names. Some one had been laboring through the productions of the American new realists, as to whether relations were "external." And I was set to wondering how much of the stuff we have written, and still write, is worth anybody's trouble on the other side of the world. Most of our debates are so bad that we soon tire of them ourselves; and I suspect most of us are now tired of hearing about "external relations."

Nevertheless I here propose to reopen the question of "externality," though only long enough to discuss what it was all about. There is an interesting analogous case in Greek philosophy. For a more precise statement and confirmation of what I am going to say, I may appeal to the chapter on "The Predicables" in H. W. B. Joseph's *Introduction to Logic*; but as I want the illustration only "to point a moral," I shall leave out some qualifications and provisos

which strict historical accuracy would require. The analogy from Greek philosophy is as follows: Aristotle raised a question which might be put: Suppose we know that "Socrates is a man," and "Socrates is bald-headed," how is bald-headedness related to being a man? This was the question of the "predicables;" and he would have answered the specific question by saying that the predicate "being bald" was only accidentally related to "being human," it was a mere chance coincidence. What he meant by "accident" would seem here to be perfectly definite and intelligible. Other such possible relationships between predicates would be: that one should be the definition of the other, or part of its definition (*e. g.* its genus); or otherwise essentially connected with its definition and hence with it (property). But all are cases of, so to speak, predicating one predicate of another. Speaking more accurately, though not in Aristotelian terms, all are cases of sorts of relations between those predicates which may be predicated of the same subject. The "accidental" and the "essential" correlations are here pretty clearly distinguishable.

It so happened, however, that in after years, when Porphyry wrote his *Introduction* to Aristotle, he really asked another question about the predicables, and thought it was Aristotle's question. He asked: Given that "Socrates is a man," how is the universal, "being a man," related to the individual, "Socrates"?—and the realist *versus* nominalist controversy had begun! Porphyry answered his own question by saying "humanity" is Socrates' "species." This gives evidence at once of a new standpoint, distinct from Aristotle's. Species is not on Aristotle's list, for you can not predicate species of genus. On the other hand, the individual, Socrates, is indefinable. Hence we see why Porphyry dropped "definition," in order to replace it by "species," in his revised list of predicables—and it has so remained in those uncritical repositories of past philosophical blunders, the college text-books on logic, even to the present day.

There was a blunder involved, for Porphyry was now asking questions, which, in the form in which he phrased them, admitted often of no reasonable answer at all. "Socrates is bald." Is that irrelevant to the nature of Socrates; is it, in the technical sense, an "accident"? Yes. But also no, for a Socrates with bushy hair would not be our dear old questioner on Athenian street corners; he would be another, a Circassian beauty, whom history knows not of. To the individual there is nothing "accidental." All is equally essential, all internal. Behold! we have spoken the word. Everything is "internal" to the individual; hence everything to everything else, for the mere fact that Socrates did *not* know his contemporary, who ruled over China, must immediately make the

Chinese emperor essential, and internal, to the full constituting of just that Socrates that really was. Had Socrates known His Celestial Majesty, another Socrates would, in so far forth, have replaced the Socrates that history records. Socrates is likewise specified by anything of which he happened to be absolutely independent; the very independence thus becomes essential; and thus independence itself turns out to be a sort of dependence. Behold, what might be involved in an incautious answer to a question that ought never to have been asked; though of course Porphyry scarcely foresaw what was in preparation for the vexing of future generations.

Now, the whole issue of internal-external, as concerns relations and things, is the same sort of an incautious answer to the same sort of a fool question. There may be some problem as to in what sense, or senses, universals are empirically found data. There is certainly a perfectly definite inquiry as to how universals, such as qualities or relations, stand to one another—as precise as Aristotle's query about the possible sorts of predicables—though the variety of types of cases complicates the answer. But as to how a universal is related to a thing, as to whether it is internal to the things to which it appertains, about that question there need be no dispute at all. It is simply and purely a convention of definition; that is to say, it is a consequence of one's definition of "thinghood."

The thing—let us take as an example yonder book—may arbitrarily, if so we decree, be defined as an *X*. It is an *X* which has color, has shape, *etc.* But in itself it is only *X*. What it *has* is not *it*. Such is the lower limit of thinghood—a mere *X*. Or perhaps you prefer and elect to say that the color and shape are parts of it, but not so its space relations to other things. The latter are external; it would still be this book were it moved into the next room. That is a second possible stage of thinghood. Or you can go on to add to the definition of the book its place among all contemporary things, including the gravitational pull upon it of the great nebula in Orion, as being an essential part of itself. But this you may supplement by saying that the present thing, the present state of the book, is an existent and event of now, and what happens in the future can not affect the present, which will then be past. What has been, has eternally been; "the moving finger having writ, moves on." The past is irrevocable; and therefore, the future can not be essential to making it what it is. Such would be another possible delimitation of thinghood. Or still again, among other possibilities, you might see fit to define the book so as to include its relations to all that you take to be objectively real, past, present, and future; but to say that my subjective thoughts, in so far as they do not issue in future overt acts, are not essential to the book. But equally

well, you can, in turn, remove this limitation also. You can say, perhaps, that all my thoughts issue in acts. Or you can say that my supposing yonder book not to be an historical work, when it actually is one, so that I do not act to open it, when otherwise a truer thought might have led me to do so, is essential to the career of yonder book, and hence part of its character. So we may go on and on, until you have included in yonder book its distance in time from the formation of volcanoes on the moon, and its place in the dreams of angels—till all time and all space, all thought and all existence, are included in its fullness. Only the world-embracing thoughts of an Absolute mind can now comprehend its entirety. Surely this is the last stage, for the whole world is in yonder book; all contrasts and differences, the very irrelevancies of things most remote, help to make yonder book what it is. But wait! This is not the last stage. We have forgotten to include the facts about the possible things that are not. It is *not* a centaur. It is *not* any of those numerous animals that the human mind has never even imagined. If it were any of these, it would obviously be different from what it is; therefore, its *not* being them is quite vitally important to making yonder book just what it is. Even the Absolute may now begin to feel some anxiety about his power to know yonder tantalizing book in all its infinite fullness. If indeed, as Mr. Philip Jourdain claims, Zermelo's harmless-looking mathematical theorem has been proved—if we so much as grant it even to be provable—then it would seem that of “the possible things that are not,” and the facts about their relation to the things that are, there is absolutely no totality whatsoever. Whatever totality of such comparisons the Absolute has thought, not carelessly and in bulk, but severally and specifically, a proof can immediately be established that there is something left out. Yonder book outruns the Absolute; there is no last stage.

The whole point of these considerations is to note that where you choose to draw the line, and say, “this much is one thing,” is always arbitrary. It is arbitrary when you take the thing as a mere *X*; but it is just as arbitrary to stop at any other stage, including a supposed last and most complete one. Thinghood is an *elastic* concept. That is why internality to a thing can have no meaning whatever, until you first define your “thing.” But thereafter this problem becomes simple and definite, and involves no puzzle nor worry. Your definition must read, “I include *this* in what I call ‘the thing,’ I do not include *that*.” The problem has thus necessarily been settled by the definition. But all concepts are not in this manner elastic. It is the task of any proper relational analysis of the world, to shift the center of interest from the elastic

india-rubber concepts of "thing," and "substance with attributes," and "cause of a thing," to concepts which do not depend simply on definition. From such a standpoint, the question of internality of relation to thing becomes a pure question of convention and definition. The real issue becomes that of the systematic interrelations, one to another, of those relations and qualities that meet together in things.

It may, at this point, be urged as a criticism, that nothing can be gained by a different selection of concepts, because all concepts are equally elastic. Thinghood is indefinite, to be sure, but so also is a universal such as redness. Just where does red go off into orange or pink? As regards this particular case, I think it quite tenable to hold that the colors are discrete, that the intermediates are mixtures, and any shade of orange is really analyzable into certain proportions of pure yellow and pure red. In that case redness will have no penumbra of vagueness. But also it would be possible to take the other alternative, and say there are various reds and oranges, and the line where one leaves off and the other begins, is an arbitrary convention. The essential point, in all cases, is, however, to be perfectly clear as to what factors are arbitrary, and what are not. It is exceedingly important that we avoid any reckless generalization, to the effect that all concepts are arbitrary, or are, through and through, mere convenient instruments. Such generalizations are sheer foolishness.

The pragmatists are sometimes annoyingly vague as well as radical in this regard, and suggest that if thought makes a distinction, or forms a concept of a universal, it can not be a real distinction, or an objectively findable universal, but is a pure invention, made only for the purpose in hand—whatever that may mean! Undoubtedly arbitrary distinctions do sometimes pragmatically "work" very well; and provided they are only arbitrary enough, subsequent experience can scarcely "refute" them. If you establish universal propositions simply by postulate—"All gold is yellow, because, by heck, that's just what I mean by gold!"—no experience could ever refute you. You would simply refuse to admit that a contrary case was gold at all. But instead of science you would then have verbal definitions of words. The "instrumental" has, very frequently, this sort of arbitrariness; the truly "experimental" can never permit it; yet pragmatist logic claims to be both at once. Or take another instance. That we count by tens is conventional. The convention is enormously convenient and works beautifully—thanks also to the arbitrary way we have of symbolizing the tens by place, that marvelous invention that we call "Arabic" numerals. Counting by tens works, it is successful, it

obviates difficulties, it leads us up to concrete facts. By most pragmatic definitions of truth, taken at their literal face value, counting by tens is the true way to count—though counting by twelves might be still truer! But counting by tens is not number; and the person who can not distinguish between these admirably successful instrumentalities on the one hand, and the science of arithmetic on the other, has not got beyond the outer gate of knowledge. Whatever may be the arbitrariness of the scientist's measuring units and index classifications, he does not want propositions, as the staple of his science, that are merely true by definition. There is an elastic side to most concepts, yes indeed, but it is always the non-elastic side that gives knowledge and science. It is ever of the first importance for us to be clear as to just where runs the dividing line.

The new realists have tried to establish that relations are, or may be, external to things. They should, instead, have swept the whole question aside with the single comment that "thinghood" is a vague popular concept. The real questions are uniformly of this sort: "Are things that are blue always extended?" or, "Are things that are blue always three inches long?" The latter coincidence is more accidental than the former, and in that sense the Aristotelian "essential" and "accidental" might well come into their own again. The question is always as to how one quality or relation stands related to, or associated with, another quality or relation, when the two meet together through their appertaining to the same "thing;" the "thing" being, for the moment, considered as a mere point of reference, whose further delimitation may be arbitrarily set. But the real question concerns a matter of interrelation, a matter of system; it has little to do with predication. From this side of Aristotle we must depart. Questions of predication arise when subjects and their attributes are the important categories of one's analysis. But a relational analysis will avoid making these categories central. Extendedness can not really be predicated of blue; it is not a predicate or attribute internal to blue. There is no such thing as "blueness" that could have predicates—except as a vicious way of speaking. There is only the fact of something's "being blue." The question thus phrases itself, not "Is blueness necessarily extended?" but, "Is whatever is blue also extended?" This sort of systematic correlation between universals, as they meet in things, is a situation that can be intelligibly discussed.

Not only can it be intelligibly discussed, but all science is such a discussion. These "relations between relations" should perhaps be called by some new and special name, to set them off from ordinary relations, such as the simpler relations of space and time. But by whatever name you call them, they constitute all systematic con-

nection. It is on this plane that "causal relations" are to be sought after—which, I take it, is the real significance of a so-called "mathematical function" theory of cause. It is on this plane that relevance finds its basis. Relevance may indeed be always "relevance to a purpose," but *why* something is relevant to a purpose is invariably a question of systematic structure among universals. Even number does not apply to concrete given data in bulk, but only as exemplifying a universal. Thus, an object before me may, as being a pencil, be one, but as being molecules, trillions. The inquirer who does not have the proper categories and point of view, will, in the analysis of relations, soon find himself tangled in snarl after snarl of pseudo-difficulties. To show how one such difficulty may be straightened out has been the aim, and I hope it is, in some degree, the accomplishment, of the present paper.

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A REPLY TO "THE DEFECT OF CURRENT DEMOCRACY"

THE term "democracy" is coming more and more to be a juggler's hat from which to produce the most various and conflicting meanings. In reading Professor Sheldon's recent article in this JOURNAL one could but wonder whether he might not throughout the article have substituted any one of half a dozen terms for "democracy" with almost equal precision.¹ The defect which he ascribes peculiarly to the notion of democracy might just as readily have found its explanation in Christianity, in over-population, or in the gregarious instinct, if we admit such an instinct.

Democracy is nowhere defined in the article further than as the ideal of opposition to aristocracy. Nevertheless, it is by implication identified with the "exaggerated organic view, by which individuality and society are deemed always interlocking and interpenetrating," and it is charged with the cardinal sin of over-socialization and social cowardice. The substance of Professor Sheldon's plea is that democracy is the tribal enemy of the unique individual. While agreeing fully with his argument for the value of personal independence, the writer wishes to raise the question whether democracy, considered as opposition to aristocracy, does not rest precisely on the claim of the individual to personal rights. Certainly the arch-aristocrat of Central Europe believed this when he said in 1918: "You of the Entente are out for democracy, are you, with its individualistic excesses?" In this country we find Professor Perry referring to "the principle of guaranteeing to the individual the largest possible

¹ This JOURNAL, Vol. XVI., No. 14.

sphere within which he may act in accord with his own desires and judgment" as one of the three great ideas associated with democracy.² And President Wilson in a recent speech is quoted as saying that the democratization of industry implies a full recognition of the right of those who work to participate in the decisions which directly affect their welfare.

But it would appear that it is not the rights of the workingman that Professor Sheldon is contemplating especially. Leaving untouched the question of the large per cent. of submerged individuals under any aristocratic régime he comes to the heart of his objection in democracy's need of the principle of superiority. Just as in any science certain facts have superior interest to others, so among human beings "the leader is greater than the led, and deserves more attention and nourishment." The most ardent democrat will agree to this, but will aver that democracy merely uses a different technique in the determination of its superior individuals. It insists that the individual's claims to superiority be validated, not merely by himself or by a self-constituted superior class, but by the whole interested public and in some truly competitive fashion. If democracy has failed of ideally fair play in its method of selection, can any better be said of aristocracy? If the stoning of prophets is the criterion, democracy has undoubtedly slain its thousands, but aristocracy its tens of thousands. Mr. Bryan can still boast a certain advantage over John the Baptist.

Professor Sheldon submits that no scientific doctrine was ever discovered by a body of men working together. Can this be intended as an argument against the probability of scientific leadership in democratic states? If so, the appeal is to the facts. The familiar comparison of democratic England with undemocratic Germany may be made in regard to one of Germany's admittedly strong sciences—chemistry. In a recent article T. R. Leigh pointed out that of the 21 laws by which the science of chemistry is governed not one was discovered by a German. "Not a component of the air he breathes was discovered by a German."³ The same is true for water, salt, and a host of other items. By contrast England numbers almost a score of profoundly original investigators, such as Boyle, Dalton, Faraday, Davy, Priestley, Rutherford, Black, Lockyer, Ramsay, Crookes, Rayleigh, and Cavendish. It is significant that Germany has shown the greatest originality just where she has been most democratic, namely in music, and that the most autocratic part of Germany has been least original even in this department.

² *International Journal of Ethics*, Vol. XXVIII., p. 451.

³ Quoted by the *Literary Digest*, Vol. LVII., No. 9, p. 31, from *Drug and Chemical Markets*.

Interesting in this connection are the findings of Alfred Odin in his "*Génèse des Grands Hommes. Gens de Lettres Français Modernes.*" He studies the distribution of 5,620 modern French authors in France, Belgium, Switzerland, and Alsace-Lorraine. This territory is divided into departments, and the ratio of great literary men per 100,000 of population is computed for each department. The mean ratio for all the departments is 18 per 100,000, but the city of Geneva has the amazing ratio of 196 per 100,000, a far greater number than even Paris is able to present. Now the very name Geneva has become something of a byword of democratic tradition. An asylum of all the persecuted, regardless of previous condition of heresy, it has made a religion of equal tolerance. Those who regard the notion of democracy as subversive of the development of leaders must find the case of Geneva extraordinary.

Nor would statistics bear out the contention that democracy tends peculiarly to make the individual fear society. The craze and the fad, to be sure, seem to be democratic specialties, but their hold on the individual is temporary and superficial compared with the dead weight of custom, conventionality, and repressive tradition that one finds wherever the belief in the ingrained superiority of the upper classes is operative. The almost morbid deference of the modern man to the opinions of the crowd about him would seem to be less an incident of democracy than of the density of population. One will look in vain for any undue dread of society in the native Maine villager or the Kansas farmer. And certainly one sees less of it in those of our colleges that are conspicuously "democratic" than in those where the aristocratic prestige of senior societies makes undergraduate life a succession of subdued moments.

If official philosophy succeeds in establishing to its own satisfaction that democracy is a mediocre thing of too much social sensitiveness, the retort from democracy will doubtless be: "Where then is that leadership of which you find us so sadly in need? Can you give it to us, or have you nothing more vital to offer than a patrician censorship?" It is a noteworthy fact that the appeal of the new Serbian democracy to American philosophy for leadership in its hour of need finds our philosophers frankly embarrassed. One of the more candid confesses that in a standard history of "philosophy" one is likely to find "forty pages devoted to the brain-spinnings of Leibniz and less than forty words to the world-shattering doctrines of Rousseau." Another sorrowfully admits that "where we should be the leaders of public life . . . we are instead . . . wordy astonishers of youth."⁴ Is this not just because there is too élite a tradition surrounding our philosophers, a something that privileges

⁴ This JOURNAL, Vol. XVI., No. 4, pp. 91 and 93.

them on occasion to play epistemological chess while Rome burns? Philosophy like democracy needs both the principles of superiority and equality. We need not only what Santayana calls the philosophy of polite America, but also the undogmatic clash of ideas which he attributes to the horde of immigrants. This democratic throng, far from showing any dread of non-conformity, is credited by him with meeting every system of ideas with a frank gaze, and saying:⁵ "Come on, show us what you are good for. We accept no claims; we ask for no credentials; we just give you a chance. Plato, the Pope, and Mrs. Eddy shall have one vote each."

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THE NEW STATE

EVEN in these days of challenging political thought it is not in every bound volume that one encounters so much to bring one sharply to attention as in Miss Follett's *The New State*.¹ "Group organization the solution of popular government" is the subtitle; the purpose of the book is definite and unequivocal; and the author writes with a combination of militant determination and evangelical zeal which arise not merely from strong convictions (which are common enough), but also from a precise knowledge of her own mind and of its logical armament (which is not common). The argumentative forces of *The New State* are effectively martialled; aphorisms stand out from its pages like a bristle of bayonets; there is no intimation of weakness in its junctures and no halt in its forward march; and there is a solid impact in the honesty of its cause. It is the sort of a book that calls for an alert reader, for it commands an easy surrender.

The argument is not complex. The meaning of democracy, in the understanding and lives of democratic peoples, must be recast in order that the thing itself may be made not only real but realizable. Democracy is not what tradition has described it as being; democracy is not particularistic, it is collectivistic; it is not a matter of numbers (votes), it is a matter of relations (groups); it is not an inheritance of rights, it is a creation of rights; before all, it is not made workable through self-surrenders (contracts and compromises), but through self-discoveries (agreements), and the realization of

⁵ *Proceedings of the British Academy*, Vol. VIII., reviewed in this JOURNAL, Vol. XVI., pp. 104-107.

¹ *The New State: Group Organization the Solution of Popular Government*. M. P. Follett. Longmans, Green and Co. New York and London, 1918. Pp. vii + 379.

freedom is essentially the development of the power to agree: "*the will to will the common will*," says Miss Follett, "is the core, the germinating center of that large, still larger, ever larger life which we are coming to call the true democracy" (p. 49).

In the concrete, this argumentative background leads to a programme of which outstanding features are: (1) distrust of the ballot: "Ballot-box democracy is what this book is written to oppose" (p. 5); (2) antagonism to party politics: "men will learn that they are not to *influence* politics . . . they are to *be* politics" (p. 240); and (3) a reconstruction of citizenship on the basis of a group consciousness which is the expression of a state organized to promote civic and social activity through civic and social living. This matter of group consciousness and group activity is the crux of the programme. First, it is not a surrender, but a realization of individualism—as Miss Follett defines this. "Individuality is the capacity for union" (p. 62); "an individual is one who is being created *by* society, whose daily breath is drawn *from* society, whose life is spent *for* society" (p. 67); and this leads socially to the conception of freedom as "the harmonious, unimpeded working of the law of one's own nature," which nature "is found only in the whole" (p. 69), and of sovereignty as the collective representation of the will of each by all and of all by each: "each should represent the whole united sovereignty at one point as each individual is his whole group at one point" (p. 285). Second, the group, as an instrument for achieving this, begins with the neighborhood, indeed with the spirit of neighborliness wherever this may be found; and by successive incorporations, not of masses of men but of modes of conduct, eventually becomes broad and solid enough to constitute a society and a state. Miss Follett is modest in regard to one essential, namely, the order of procedure in the process of group incorporation. Clearly, the neighborhood group is the first prop of her faith; but along with it are occupational, religious, and other organizations which should not be ignored. She envisages all of these, in her fulfilled state, as entering into the web of social representation which is the state; but she does not suggest any definite plan for their accommodation. She fears, and rightly, the dangers of a mere transverse grouping, such as is represented by occupational alliances, by labor versus capital, as well as by the system of political parties. She suggests, and rightly, that the truest safeguard against the mechanism and bossism which such an organization invites is the development of neighborhood solidarities, which (to use a word which is not hers) must rest ultimately upon a local patriotism. But she recognizes, as all must, that the course of political safety to-day is the course of political

boldness, and that it is no portion of the task of the hour to reject the instruments offered because they are attended by dangers; every mode of group organization must be utilized, and all must find their place in the readjusted state.

With the practical programme suggested in *The New State* I am in hearty concord. I believe that the first step into a brighter future must be the expansion of local self-government into a true "neighborhood" organization devoted to a discovery of the betterment of the neighborhood life. I believe also that the broader organization of states and civilizations must embrace and encourage groupings of men having common understandings and common interests—occupational and ideal. In other words it is the business of society to see that the broad interests of men find recognition, and that economic and political machinery be not allowed to become the instruments of self-seeking and particularistic ambitions. In another respect, I fail of agreement; for I can not see the possibility of the union of the two types of organization (neighborhood and by interests) without the development of partizanships, and I believe that Miss Follett is entirely in error in respect of the true significance of the ballot;² she sees its abuses, but not its meaning, and the plan of national organization she herself suggests (Chapter XXVII.), involving as it does representative commissions, could not be created except by some mode of voting. These issues, to her essential, seem, however, to me wholly secondary: the main point is the need for a new life in the state, built upon new internal understandings; and to this the neighborhood movement leads the way.

But underlying and supporting her practical programme Miss Follett has a political philosophy that is of no less interest. In a narrowly political sense her philosophy of the state is not new: she shares with Aristotle the belief that the essential character of the state is as an organization of the interests of its citizens, and that these are ideal in proportion as they are civic; and her conception of freedom and sovereignty are identical with Rousseau's (the *moi commun* and the *volonté générale*). But Miss Follett has another, a psychological conception, which, while it is similar to the notion of Aristotle and of Rousseau that a man is truly humane only when he is political, is nevertheless more downright in its sociality. The "new psychology" is almost more stressed in her book than is the "new state," and the reason for this is made apparent by the intensity with which she emphasizes her belief that all that is good not only in the state but in human nature must be discovered (or rather

² Perhaps it may be in place to state that the reviewer's conception of the function of "The Ballot" is contained in an article under that title in *Letters to Teachers*, Chicago, 1919.

made) in the working out of our social instincts; "if we can make a moral whole then we shall know whether or not there is one" (p. 334). The fundamental laws of life are two: first, self-perpetuating activity, in which the activity is the element that counts; and second, what Miss Follett calls *interpenetration*, meaning that the activity always expresses itself in forms of association which are generative relationships between members of groups. Man is so intensely social that, deprived of his sociality, there is left of him nothing that can really live.

The metaphysical background for this is rather startling, for Miss Follett relies with ready assurance at once upon the teachings of James and Bergson and Hegel (the latter via Royce, one is led to suspect). James's conception of the multiple self with its multiple possibilities of liaison, as also his belief in "a continuous life which the universe knows by heart and acts on every instant" (p. 264); the *élan vital* (*passim*), and Hegel's rule that self-transcendence is through a synthesis of self and others whose realization is a "whole"—these are the elements chosen from each of the three philosophers and brought together in a kind of metaphysical sociability. At any rate the collocation will serve to remind us that all three thinkers are of a kind in that all three are primarily humanists, and it may suggest the reflection that eclecticism is justified in so far as it points out that consistency is mainly a matter of emphasis.

Miss Follett's conception of a liaison-inviting self driven on by the vital impulse to the formation of a social Whole gives a satisfactory metaphysical background for her intensely social reading of human nature; and if her psychology were true one might have a faith equal to hers in the power and promise of her political programme. But it is difficult to maintain such a faith. She herself says, and truly: "Man's biological inheritance is not his only life" (p. 38); and I should feel compelled to add, nor is his social inheritance his only humane life. It is not merely that I believe that a certain moment of contention is inevitable and is healthy in human affairs: that moral responsibility often resolves into a willingness to fight rather than into the enthusiasm of an acclaim. Nor is it merely that we have to reckon with rogues among men as among elephants, or again that men banish themselves from society for other motives than selfishness: stagefright, pioneering, the hermit's cell, and the philosopher's closet all own a certain kinship to the grim walls of prisons, and the mere fact that there are "growing pains" connected with the bashful youth's emergence into society shows how far from complete is the mastery of the social element in our total constitution. But the main point is that our ideal interests do not, and I

think never can, square with the political frame, no matter how organized the society nor how close-neighbored its members. Science is more impersonal than politics ever can be; art is more personal than politics can be; and religion is at once more impersonal than science and more personal than art—more Roman and more Protestant than any church. There is an outer metaphysical and an inner psychical context to life untouched by the middle sphere of the political world.

I do not know that I can express this other than in the form of a conviction; its truth is, perhaps, aside from demonstration. Yet I may make my meaning clearer when I say that when I arise in the morning and mingle with men and endeavor to move in their affairs the mode of my conduct and the color of my sympathies correspond, I think, to what Miss Follett would wish of her citizen. Yet I am under no illusions as to the fullness of this experience, nor does it promise me Utopia; for I know that within my experience there is still, both in judgment and in feeling, that which is aloof from the walks of men. It is perhaps no matter of pride; often it is distinctly a regret, or of that motion, most idiosyncratic of all, which we name conscience. But it is sufficient to make me realize that there are ends to which no man nor group of men can guide me, and that there are quests of the spirit of man which lead beyond the range of his foresight.

There are multitudes to-day who, outraged by wars and the cruelties of mortal men, are demanding that we make over our natures, and are hopeful that through economic and political devisings we can make them over. But the roots of human differences strike deeper than economics and deeper than politics. When Helen gat her to the Skaian gates the elders judged: "*οὐ νέμεσις Τρῶας καὶ ἑὺκνήμιδας Ἀχαιοὺς*"—"Reproach is none to Trojans, none to mail-clad Greeks, that for such a woman as this they bear long pains." It is the mode to speak of the ancient struggle for the Dardanelles as, like the modern, a war for trade-routes; but the elders of Troy knew better: it was for Helen that the old war was fought, and it is for another Helen that has been fought the new—for wherever in men's eyes shines the face of an immortal they will break all else to retain the vision.

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REVIEWS AND ABSTRACTS OF LITERATURE

The New State: Group Organization the Solution of Popular Government. M. P. FOLLETT. New York: Longmans, Green and Co. 1918. Pp. vii + 379.

I suppose there never was a greater day for philosophers. The long-accepted world is breaking to pieces; and every truly philosophic heart throbs with joy. There is an ancient tale come down to us of Humpty Dumpty who sat on a wall, and who, for a reason not expounded in the text, had a great fall. It is recorded thereupon that all the king's horses and all the king's men couldn't put Humpty together again. What is significant about this tale is that the king apparently had not sense enough to call upon his philosophers to do the mending. With a result, of course, that the veriest babe could have predicted!

Apparently, to-day, philosophers, if ever at all, must do the mending. We are inclined to smile at that, for researches into the One and the Many seem hardly to comport with the grim task of reconstructing the world. Doubtless the philosopher is to blame for this. His problem of the One and the Many seems to have had little to do with the ordinary man's universe. It seems to have belonged far more to the blessed and incorruptible sphere of ontological chit-chat.

It is doubtless a true criticism of the philosopher that he has withdrawn himself too jealously from the world. Finding divine principles in the world, he has fallen into such transports of ecstasy over them, that he has ravished them away for his own honeymoon of delight. His world, therefore, has seemed to be altogether not of this world.

The New State is a philosophy come back to earth. The One and the Many are there; the Universal and the Particular; Monism and Pluralism; objectivism and subjectivism; real personality; unity of opposites; compenetration, and all the rest; but they do not float in the metaphysical ethers. They are tied to the homely behaviors of men and women in society.

The peculiar value of this book is that it not only contributes philosophy to politics, but politics to philosophy. It enables the philosopher to find himself in the problems of social and political life, particularly in the complex and confusing problems of the contemporary period. It gives him a feeling that, in the clash of arms and passions, he need not be an ineffective looker-on. The world-changes to-day, it clearly shows, are philosophical changes; and if the philosopher, in this matter, knows not how to philosophize, wherewith shall philosophy be rendered?

Fundamentally, the problem of to-day is the old problem of the One and the Many. A new school of political thinkers has arisen, challenging the exclusive monism of the State; economic groups challenge the dualism of dominating and subject classes; political conservatives challenge the disintegrating philosophy of anarchism, anarchists the pseudo-integration of a so-called representative democracy that is neither democracy nor representative; internationalists challenge the atomism of national sovereignties, while the forces of science and business enterprise overleap the numerical diversity of boundaries and interweave new unities.

Have we yet learned the trick of making a vital unity out of our persistent diversities of life? Obviously not. The war is over; but there is a war after the war. The Many fight the Many; and the One goes sadly a-glimmering in a world distraught.

The present State is in large measure a crowd State. Economics is crowd economics. But democracy has never yet been born in a crowd. Democracy, in the first place, depends upon individuals. We are wont to say that the past age has been an age of individualism; but as a matter of fact we have never known real individuals. Individuals do not thrive in crowds. We are wont to say also that the tendencies of the present age are toward collectivism. But a collectivism of non-individuals or of low-grade individuals offers no bright outlook for the future.

"No government will be successful, no government will endure, which does not rest on the individual, and no government has yet found the individual. . . . Yet the search for him has been the whole long striving of our Anglo-Saxon history. We sought him through the method of representation and failed to find him. We sought to reach him by extending the suffrage to every man and then to every woman and yet he eludes us. Direct government now seeks the individual; but as we have not found him by sending more men to the ballot box, so we shall not find him by sending men more often to the ballot box. . . . Democracy is not a sum in addition. . . . It is a genuine union of individuals."

How is that genuine union to be attained? Primarily, of course, by finding the true individual. "The party has always ignored him; it merely wants a crowd, a preponderance of votes. The early reform associations had the same aim. Both wanted voters, not men. It makes little difference whether we follow a boss or follow good government associations, this is all herd life—'follow the lead'—democracy means a wholly different kind of existence. To follow means to murder the individual, means to kill the only force in the world which can make a Perfect Society. Democracy depends on the creative power of every man.

"We find the true man only through group organization."

Here, in a sentence, is the essence of the book. The group is the fundamental instrumentality of a true democracy.

Why is this so? Because in the group—as over against the crowd—lives interknit, minds interpenetrate. The particular self in the group becomes a self-in-and-through-others; becomes in short a larger self, partaking of the "real personality" of the group and so becoming a group self.

Political philosophy has paid hardly any attention to the group. It has been busied with the individual and with society. As a consequence, it has been greatly troubled over the puzzle of the individual *versus* society. An adequate political philosophy will recognize that man lives his social life most effectively in groups—neighborhood, occupational, artistic, scientific, *etc.*—and that in his group life "the fallacy of the self and others fades away."

So, likewise, in the group the fallacies of political monism *versus* political pluralism fade away. The State is a many? Yes. But it is a many of individuals and groups that interweave, interpenetrate. The State is One? Yes. But it is a One that lives in and through a rich manyness. The individual is not "merged" in the true state. Institutions are not "absorbed." Rather, in the true State individuals interpermeate in group life, and groups interpermeate in the larger life of the State.

Political pluralism has been a reaction against a too rigid and abstract political monism, precisely as metaphysical pluralism has been a reaction against a monism of the "block" variety. *The New State* is frankly sympathetic with pluralism's motives; but it points to the solvent concept—the group—which saves pluralism from committing logical and political suicide.

There are few books published in recent years that go so deeply to the foundations of our social and political problems. When all the world is leaguings nations, it is not *mal à propos* to inquire as to the social and political competency of these nations. We are suddenly reminded that one penetrating thinker after another for the past twenty-five or thirty years—Benoit, Faguet, Duguit, Christenson, Laski, Wallas, Barker, Figgis, Cole, Croly, Lippman, Orage, the Hobsons, de Maetzu—has recognized the failure of our typical so-called democratic State. The problem we face is far more than that of linking these comparative failures together. It is the problem of fundamental reconstruction.

The New State is a penetrating psychological and philosophical study of the "group" as the hitherto neglected factor in social life out of which the true organization of the future is to grow. In this

respect the book is in line with—although acutely critical of—all the more significant modern developments in politics. For the philosopher of the new politics this volume is rich in suggestion.

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Mind and Conduct. HENRY RUTGERS MARSHALL. Morse Lectures delivered at the Union Theological Seminary in 1919. New York: Charles Scribner's Sons. 1919. Pp. ix + 236.

Under this title Dr. Marshall presents a discussion of several traditional problems in psychological ethics, showing throughout the work a disposition toward original speculation on a basis of recent science, rather than the gathering of accepted facts in text-book form. Much of the actual newness of the book consists however in its terminology rather than its conclusions, which after glances at instinct-feelings, neururgic and noetic patterns, guide the reader back to the firm ground of psychophysical parallelism, the dignity and freedom of man, the value of intelligence, and the right to believe.

Implied in the title of Part I., "The Correlation of Mind and Conduct," is an hypothesis stated on page 10, "that consciousness and behavior are two diverse and distinct existences, and that they are in some manner related." Later (p. 26) this receives more explicit formulation: "(1) Each situation in consciousness involves a special and specific mode of behavior. (2) Each mode of human conduct has correspondent with it a special and specific situation in consciousness. (3) The noetic and neururgic correspondence appears to be thoroughgoing." Much of the remainder of the work is in some sense a following out of the implications of this assumed correspondence, upon the principle that if a certain phenomenon is observed on one plane, it must have its counterpart on the other, even though the distinct existence of that counterpart is otherwise undiscoverable. In quest (p. 29) of something in behavior to correspond with reason, we find "adaptive acts," while "turning to the psychic field we are led to the suggestion that we should find what we may call 'instinct-feelings' corresponding with our instinct-actions . . . even though these instinct-feelings are often so unemphatic as to escape our notice." By this method, reminiscent of Mendeleëff's hypothesis that certain elements must exist because there is a place in the periodic table for them, we are led to a concept of the Self as a psychic complex analogous to the bodily organism, with an attendant doctrine of the "empirical ego" that appears in self-consciousness.

There follows an incursion into metaphysics: we have a sense of the Self's creativeness, so there must also be in the field of behavior an objective creativeness. Since Man is a part of Nature and creativeness is one of his characteristics, it must also be a characteristic of Nature. The opposing doctrine of mechanism is stated in terms that may perhaps arouse protest from its adherents, especially where the mechanist is made to assume (p. 84) "that at one moment at least in the history of the Universe objective creativeness appeared; for he tells us that at some indefinite time in the past this huge clock-like machine was wound up." Newness or creative spontaneity in Nature, not clearly defined but illustrated by the biological discoveries of De Vries and T. H. Morgan, is in Dr. Marshall's concept an ever-present determining, though apparently undetermined, factor in the world process. It is held to be different from the entelechy of the vitalists in that it "always has been, and now is, operative through the whole of Nature."

This concept provides a basis for stressing the importance of creative ideals, and the freedom of the Self "to act in accord with its own nature." One of the most interesting sections of the book deals with the matter, always debatable in law, psychology, and ethics, of responsibility for one's actions. Here the position adopted is the radical one that there is no such thing as irresponsibility, even in insanity; the determination of guilt and punishment is a distinct and irrelevant problem. Under the heading "Guides to Conduct," pleasure and pain, happiness, intuition and reason are in turn examined and found only partially helpful. Psychological hedonism is rejected in the usual manner for its falsity, and ethical hedonism for its impracticality. Intuition, viewed in no mystical sense but as an immediate instinctive or habitual reaction, is recognized in conclusion as having its own value, even against reason.

The scope of Dr. Marshall's work as a guide to contemporary psychological ethics is somewhat restricted by an almost total absence of the social viewpoint, which many have come to consider indispensable to a study in this field. To readers already convinced of its premises it will be especially welcome for its treatment of them in terms of recent science, while to others, by reason of a frequent reliance upon deduction at the expense of evidence, the first two parts may seem an unconvincing though a clear and thoughtful statement of opposing views. The discussion of guides to conduct is less polemical, more concrete and practical, and deserves therefore a more undisputed place as a serious contribution to the technique of intelligent conduct.

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JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. November, 1918. *Mechanism, from the Standpoint of Physical Science* (pp. 571-576): LAWRENCE J. HENDERSON.—Examines the anti-mechanistic views of Driesch and J. S. Haldane, finding in the former a too confident discussion of things that no one understands, and in the latter insufficient argument from organization to overthrow the mechanistic hypothesis. *Mechanism and Vitalism* (pp. 577-596): H. S. JENNINGS.—Adopting experimental determinism as the crux of mechanism, the writer examines two vitalistic theories, one that criticises the adequacy of experimental determinism for the phenomena of life, and one that, accepting it, maintains that when applied to the living it yields elements and laws diverse from those reached by the study of the non-living. *Mechanism versus Vitalism, in the Domain of Psychology* (pp. 597-615): HOWARD C. WARREN.—Classifies the arguments against mechanism as the argument from Inconceivability, from Organization, from Voluntary Selection, and from Teleology. Examines the four lines of argument and concludes that the facts can all be subsumed under the general programme of physico-chemical mechanism. *Mechanism versus Vitalism as a Philosophical Issue* (pp. 616-627): WALTER T. MARVIN.—Philosophically the issue between vitalism and mechanism is considered from two standpoints, that of logical analysis, and that of historical development. Logically the issue is one between science and romanticism, historically it has been an issue growing out of different emotional attitudes. The future of the issue will depend on whether we *want* science or romanticism to prevail. *Mechanism and Vitalism* (pp. 628-645): R. F. ALFRED HOERNLÉ.—The thesis maintained in this paper is: "Not mechanism *or* vitalism, but mechanism *and* teleology." By use of the concept of *value*, one may read "relations of cause and effect as also relations of means and ends." Both readings are necessary and compatible. *Discussion: The Kantian Ethics and its Critics* (pp. 646-650): FRANK THILLY.—Examines the criticisms of the Kantian principles of ethics offered by Professor Adler in his *An Ethical Philosophy of Life*. *Reviews of Books. Notices of New Books. Notes.*

PSYCHOLOGICAL BULLETIN. December, 1918. *General Reviews and Summaries: Comparison of the Sexes in Mental Traits* (pp. 427-432): LETA S. HOLLINGWORTH.—The annual review entitled "Sex Differences in Mental Traits" now appears under the new title due to the lack of sex differences. *Theoretical Ethnology* (pp. 432-435): R. H. LOWIE.—Nine references are reviewed. *Psychophysical Measurement Methods* (pp. 436-439): H. A. RUGER.—A brief sum-

mary of the work of nine authors is given. *Special Reviews*: M. Dide, *Les Emotions*: H. N. GARDINER; Wrightson, *Internal Ear*: R. M. OGDEN; Various Articles on Morale: G. S. HALL. *Discussions*: A Note on Vision-General Phenomena: C. E. FERREE and G. RAND; Thurstone's Measures of Variability in Learning: J. PETERSON; An Easy Method of Determining the Coefficient of Correlation: H. F. ADAMS. *Editorial Note. Indexes.*

Aristotelian Society. Proceedings, 1918-1919. London: Williams and Norgate. 1919. Pp. 311. 20 s.

Aristotelian Society. Problems of Science and Philosophy. (Papers read at the joint session of the Aristotelian Society, the British Psychological Society and the Mind Association, held at Bedford College, London, July 11-14, 1919.) London: Williams and Norgate. 1919. Pp. 220. 12 s. 6 d.

NOTES AND NEWS

PROFESSOR JOHN DEWEY, who has been enjoying exceptional opportunities for the study of social movements in Japan and China, has written in personal letters home about many things with which the American public is but very slightly acquainted. The parts of a number of his letters dealing with public events have been assembled, and will be printed, probably by the *New York Tribune* in their Sunday edition.

WILLIAM McDUGALL, formerly of Oxford University, has been appointed professor of psychology at Harvard University, to fill the place left vacant by the death of Hugo Münsterberg.

DR. J. F. DASHIEL, assistant professor of psychology at Oberlin College, has been appointed associate professor of psychology in the University of North Carolina, and succeeds in that capacity Dr. H. W. Chase, who has been elected to the presidency of the University.

SPECIAL NOTICE

COMMENCING January 1, 1920, the subscription price of the JOURNAL OF PHILOSOPHY will be \$4.00 a year.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

LIBERTY AND REFORM

THE ancient Greek sophists, the stoics, Rousseau, the French humanitarians and even the Russian Bolsheviks are alike in one respect. Each failed splendidly. The source of failure is not far to seek. It lies in what I shall call *subjectivism*. And by subjectivism is meant the absence of any consciously devised machinery of organization through which ideas find expression.

The sophists in the field of ethics, logic and politics developed an excessive individualism which led to a policy of forwardness, at once bold, irritating and opportunistic. An inordinate preoccupation with the inner life is the dominant note of stoicism. To be sure the stoic boasted of a cosmopolitanism. But its basis was entirely metaphysical and subjective. A man was a citizen of the universe, not by virtue of participation in conjoint activities or the sharing of common objective interests, but because, being a fragment of divinity, he was bound to his fellows by inner spiritual ties. It should be said, however, that the cosmopolitanism of the stoics went far toward breaking down social and national barriers while its doctrine of universal brotherhood developed the feeling of spiritual kinship and helped forward the spirit of democracy and internationalism.

Rousseau's cry of "back to nature" is not an appeal to go out of doors. By nature he means subjective nature. Conventions and institutions are the barriers that hold men apart. Rousseau would recapture that state of primitive innocence before man was spoiled by society or contaminated by politics. The dominant intellectual characteristic of the eighteenth century was its spirit of optimism, an optimism at once romantic, humanitarian, and complacent. Its basis was founded on man's trust in reason as an expression of universal law and a faith in humanity as inherently good. The underlying basis of social solidarity and the principles of political unity were entirely subjective and sentimental. Liberty was a thing of ideas, feelings, literature, and art. It lacked the machinery of organization for the execution of its ideas, it had no objective basis in institutions. Men attempted to fraternize on the basis of sentiment. As a result there developed a childish romanticism and a *laissez-faire*

philosophy. Men were left free to pursue their own interests with as little outside restriction and governmental control as possible.

The Russian Bolsheviks, like the French humanitarians, are possessed of an abnormal capacity to feel. From this springs their simple-minded idealism. What they want is not governmental restraint, but opportunity for the unhampered expression of feeling.

Subjectivism ends in anarchy. This is not to denounce human nature. But it is to say that life does not contain within itself the means and agencies of its own furtherance and growth. A society which derives its cohesive forces from within must remain vacuous, unorganized, and chaotic.

Another way of viewing liberty is to present it in terms of something objective. For illustrations we turn to English history. As far back as 1215 England guaranteed liberty in the form of a written document. Here there was something objective that men could go to. Up to Milton, at least, there is no philosophical background to English political development, no recourse to abstract principles. The appeal is to definitely recorded rights and to registered precedents. Liberty was a thing of statutes and documents. The rights appealed to in the famous Petition of Rights (1628) are no abstract principles. The grievance is that the king has not kept faith with the statutes enacted. "We humbly show unto our sovereign . . . that whereas it is declared and enacted by a statute (so and so) . . . , yet nevertheless of late divers commissions ('against the tenor of the said statutes') have issued." The petition is that his Majesty be graciously pleased to serve "according to the laws and statutes of this realm." "Lest we forget" is typically British and is at the basis of English conservatism.

The emphasis to be put on the "contract" theory of government put forward by the classical British political philosophers is just this, that government is a contract, though as some one has remarked, if Hobbes or Locke had been asked to produce the contract they would have been rather hard pressed to find it.

England's trust is in her political institutions. The growth of English liberalism in the nineteenth century is almost exclusively in terms of legal reform. Witness the reform of the penal code, 1823; religious liberties granted to Protestant dissenters, 1828; the Catholic Emancipation Act, 1829; the First Reform Bill, 1832; abolition of slavery, 1833; acts regulating factory conditions begun in 1833; repeal of the Corn Laws, 1846; the Chartist Movement, 1848; the Second and Third Reform Bills, 1867 and 1884.

A similar legal conception of liberty is held by the early American political philosophers. Emphasis on Bills of Rights is too

patent to need comment. Certain liberties thought to be fundamental were formulated into propositions and put into writing for security against invasion.

Upon the illustrations just cited two observations may be made. First, liberty is viewed legally and politically. The struggle for liberty has been largely a struggle for constitutional rights and for political recognition. The era of capitalism may in a very true sense be presented as the rise of the middle-class to political power. And in an equally true sense the world-wide labor unrest is a similar struggle on the part of the proletariat to gain political influence. Whether we take the political revolutions of the seventeenth and eighteenth centuries or the industrial revolution of the nineteenth century, the aim has been to gain liberty through the enactment of law. Secondly, liberty as thus conceived is at bottom a negative conception. To overthrow monarchy, to smash tyranny, to beat back aggression, to throw off encumbrances, to resist oppression, these have been the aims of liberalism and democracy.

Institutions designed to resist oppression may themselves in time become oppressive. Institutions become burdensome when they are taken as ends in themselves rather than as means; they then become set forms; instead of subserving human ends, they suppress them. But that is to mistake loyalty for liberty and to put coercion in the place of control. To institutionalize life is to reduce life to mechanism and thus to preclude the possibility of development. A machine can not progress. If subjectivism failed splendidly, institutionalism has, or very nearly has, succeeded ignominiously. It is not that habit is more potent than impulse; its power lies in its superior organization. But what you gain in stability you lose in variation.

If subjectivism, lacking an objective basis of control, has been drifting toward anarchy, institutionalism, in its glorification of authority, has tended toward tyranny. What is needed is an analysis of the concept of liberty, a liberty which will be less variable than a sentiment and more human than a document. Somewhere between irresponsibility and coercion lies freedom.

Wherever there is life there is movement. If those who have written about "springs to action" would have spent five minutes looking at an ameba under a microscope they would never have made the blunders they have. There is no question about starting activity. The little animal is already acting, the problem is to keep it still. There are no springs to action, but only springs to particular kinds of activity. The "springs" are to be found in the external medium in which the activity is going on. Activity starts from within, direction is determined from without. The environment with its checks and limits solicits and directs the particular response.

We thus have two things: an inner impulse to move, and an outer determinant of direction. So far as the activity is concerned, the two phases are inseparable aspects of a single and indivisible process. Varied reaction is the original source of spontaneity. Here, if anywhere, freedom begins. At the lowest level of life there is physical restlessness, a tendency to make a variety of movements over and above the actual demands of the situation. This forward impulse finds the means of its furtherance in the environment. Activity expands, develops, takes direction, gets organized in terms of the factors of the external medium. The stimuli are invitations addressed to particular movements. They evoke or restrain, elicit or limit, encourage or check. Impulse maintains itself by extracting from the environment the means of its own conservation. In itself the impulse is loose and unorganized. It lacks "form." This deficiency is supplied by the solicitations of the environment.

The question to ask is not whether the action is free or determined, but whether it is effective. It is effective just to the extent that the factors of the environment are utilized as means of helping forward the life of the *amœba*. Freedom and determination are the subjective and objective aspects of a process which in itself is single and indivisible.

As life becomes more highly organized certain tendencies to action get standardized and become hereditary. These are instincts. The forward impulse here appears as a purposive impulse. A certain amount of selection is provided for in nervous preparedness. Instinctive behavior manifests the same dual character. Purposive impulse is there to begin with but it awaits a stimulus from without to arouse and develop it. The initial impulse is from within, the objective stimuli are means that direct and guide the activity toward the goal to which it is already headed. The subjective and objective phases of instinct may be illustrated by the instinct of curiosity. Curiosity exhibits a peculiar combination of alertness with caution. Alertness is the aspect of behavior viewed from the standpoint of the animal, caution is the same process viewed from the standpoint of the environment. Activity progresses with a sort of rhythmic balance between advance and retreat, wariness and readjustment, exploration and testing. Subjectively there is the impulse to try out, but each step in the experiment is checked up by what the advance reveals.

Conscious reflection involves both induction and deduction. The effective advance of a reflective experience exhibits a balance of suggestion, hypothesis, discovery on the one hand, and control, elaboration and proof on the other. We "cut" to get things into shape and

"try" to see if they fit. The inductive phase is experimental, it involves elasticity, variation, freedom; the deductive phase is regulative and involves form, stability and responsibility. A complete act of thought involves both aspects. An inductive hypothesis is tentative until confirmed, that is, until "form" is put along with "matter." Deductive concepts are truly "forms." To give information is to put form into what was unorganized. To give instruction is to give stability by providing structure. Deductive concepts provide the medium in which ideas develop. They do not block the thought process, they are the means through which the process is sustained.

The old dilemma between free will and determination is the result of taking the two complementary phases of a single and indivisible process and viewing them as separate processes. Induction without deduction is blind, freakish, de-formed. It leads to irresponsibility, anarchy and subjectivism. Deduction without induction is empty. Concepts become institutionalized. They operate mechanically and lead to habit, routine and intellectual coercion. No wonder a rigid deductive thinker like Spinoza combines mechanism, determination, and absolutism.

Freedom of thought means responsible and effective thinking. It is now well established that reflection takes its point of departure in a situation of confusion. Thinking is free just to the extent that concepts are utilized as means of clarification. To think is to adjust means to ends.

All psychology is social psychology. Freedom of action is entirely analogous to the types of activity illustrated in the cases of the ameba, the instinct of curiosity, and reflective thinking. Social activity exhibits a subjective and an institutional aspect. An intensification of either aspect to the neglect of the other leads either to subjectivism or institutionalism. It is the substantive and not the adjectival forms of the words that are misleading. Social liberty is to be found in a just relation between the two aspects. Justice is an ad-just-ment. Free activity and moral activity, liberty and justice are one and the same thing. This is essentially the position set forth in the ethics of Aristotle.

Life has no end beyond itself, or, as Aristotle would say, no "final" cause distinct from itself. The only end of life is to live in such a way that you can keep on living. If there is a distinction of ends, it is the distinction between living and living well. The final cause of life is the realization of its own characteristic excellence, the successful performance of its characteristic functions. The "formal" cause is the state of organization that any specific life exhibits

at any moment of its career. Matter and form are not two separate things. To separate them was the mistake of Plato. It is as if matter developed to the point where it achieved contact with form. But that is to open the way for either subjectivism or institutionalism. For Aristotle matter and form are two complementary aspects of development. Neither is form an end in itself. You do not give form to an impulse just in order that it may possess form, you do it because a formed character is more successful in the performance of its activities than a de-formed one. A well-formed character is one in which the loose natural capacities are through practise and training stabilized in the interest of well-ordered life. Activity is an end in itself, but activity must have something to act on, or as expressed by Aristotle, if activity is to be successful, the one acting must be adequately supplied with "external goods." External goods are not ends in themselves, but means only. It is thus that we speak of a man of "means," meaning that he is supplied with the necessary conditions of an enriched experience.

I have dwelt on the place and function of "form" for an obvious reason; it is to determine accurately its instrumental function. Institutions are "forms" of social organization and constitute the medium in which social life goes on. What the checks, limits and solicitations of the environment are to the activities of the amoeba, what the objective stimuli are to the instinct of curiosity, what concepts are to reflection, that institutions, conventions and forms of social organization are to community life. Both thought and action proceed within the limits and under the conditions of an institutional background.

Institutions have an instrumental value, they are means to ends, never ends in themselves. We must learn to estimate institutions by their human value. "The ulterior significance of every mode of human association," writes Professor Dewey, "lies in the contribution which it makes to the improvement of the quality of experience."¹ The qualitative excellence of experience is life's intrinsic worth. But life attains excellence only in and through external forms that provide the machinery of organization for its expression. To escape institutionalism, forms must be continually re-adapted to the changing conditions of life. To reform is literally to *re*-form. That is, to provide new and more effective outlets for the expression of life. To reconstruct is to change things by introducing a different type of structure. Democratic reform at the present time consists in the introduction of a different structural principle of organization. It is to change democracy from a legal to a social institution.

¹ *Democracy and Education*, p. 11.

Traditionally we have started with certain abstract principles and have framed our political institutions in accordance with them. A civil right, we were told, is a natural right exchanged. These natural rights were abstractly rather than vitally conceived. It is thus that legal institutions lose their contact with life. An inquiry into the basis of natural rights would take us back to the eighteenth century conception of natural law. It is thence that our entire mechanical conception of law is derived. Legal institutions could be worked out with scientific exactitude and mathematical balance just because the underlying philosophical conception was through and through mechanical. In commenting critically on such a conception we again revert to the position of Aristotle. He did not think you could have an exact science of ethics. The facts of life were thought to be too variable and uncertain to be reduced to scientific exactitude. You can have no more *uni-form-ity* than the nature of the subject-matter allows. It was just because natural capacities were in themselves indeterminate that the statesman must undertake the task of training them. Of metaphysics, Aristotle said: "Other sciences may be more useful, but none is so excellent."² Of ethics he might have said: "Other inquiries may be more exact, but none is so human." Probability is the price we pay for our humanity.

Instead of inalienable rights and abstract principles as points of departure we must, like Aristotle, begin with natural capacities, or in terms of a more precise psychological terminology, with impulses and instincts. These original tendencies are loose and unorganized. They must be subjected to control. You control life indirectly by controlling the medium in which it expands and develops, that is, by providing an objective and institutional basis of regulation. Democracy is thus more than a form of government, politically and legally conceived. It is a way of life. A free life is one which finds in the external medium the means of its own furtherance. Freedom is self-control, that is, a combination of the subjective and institutional phases of social activity. On the subjective side, there is variation, inventiveness, spontaneity; on the institutional side, there is form, verification, stability. Democracy, we conclude, is that form of social organization in which each member of the social group is given free and full access to all the means and agencies of social growth.

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² As translated by Professor Woodbridge.

REALISM AND PERCEPTION¹

THERE is no getting around the fact that, however idealistic our ultimate philosophy may be, in the moment of percept we are all realists. The things that we perceive force themselves upon us with so potent an independence and objectivity that for the time being it is impossible for us to regard them seriously as in any sense dependent upon our knowledge or even upon *Bewusstsein überhaupt*. Perception is the great stronghold of realism, to which it may retreat and in which it may feel tolerably secure, no matter how disastrous the battle may have proved in the less sheltered portions of the field.

But while realism when intrenched within perception may feel secure, it has seldom been able to find the intrenchments really comfortable. It is odd, but it is in my opinion unquestionably true, that none of the three schools of realism which historically have had the greatest prominence have been able to give a satisfactory, or even a tenable account of perception. I refer, of course, to naïve realism, the Lockian dualism, and neo-realism. Because naïve realism has never questioned the certainty of our knowledge and because neo-realism has especially backed itself to vindicate it, they have both propounded doctrines that seem at first consistent enough with the facts of normal and veridical perception, but which are quite incapable of giving any sort of satisfactory account of what happens in illusion and error. Lack of time makes it impossible for me to defend this statement here, and I therefore simply lay it down, rather dogmatically, with many apologies to my neo-realist friends. Locke saw the difficulty in the case of naïve realism and to avoid it constructed a doctrine which should explain illusion and error, but he unfortunately forgot to leave room for the possibility of true knowledge and veridical perception. "Since," to use his own words, "the mind hath no other immediate object but its own ideas," it would seem to be precluded from perceiving or knowing anything else. The difficulties of accounting for illusion on the one hand, and for veridical perception on the other are, in fact, the Scylla and Charybdis upon one or the other of which the realistic barque seems somehow bound to go to pieces. Indeed we might even go farther and insist that both Locke's sailing craft and the mighty modern steamship of neo-realism with all its scientific apparatus have somehow managed to outdo every ship of classical antiquity in getting themselves wrecked on *both* Scylla and Charybdis. For if, as Locke

¹ Read at the meeting of the American Philosophical Association at Cambridge in December, 1918.

insisted, the mind hath no other object but its own ideas, it is difficult to see how it ever could be mistaken, and if this is so, illusion and error would be no more possible than true knowledge of the independent objects in which realism believes. And the new realism, as its critics have more than once pointed out, has no satisfactory way of dealing with the psychophysiological facts in the perception process, nor with the time differences between the events perceived and the act of perception. In all this I am of course taking for granted the adequacy of the very forceful and detailed criticisms that have been made upon neo-realism, criticisms which have brought to light difficulties which all but the neo-realists regard as well-nigh insurmountable, and which most of the neo-realists themselves, if I am not mistaken, will candidly admit to be at least serious.

All this is strange enough in view of the fact I pointed out at the beginning of this paper, namely, that perception is the very home and citadel of realism; and it would seem to suggest that it behooves the would-be realist to examine more closely the state or process of perception and make more sure than he has sometimes done in the past of the nature of his stronghold.

What the accepted account of perception among psychologists really is it would be difficult to say. Both James and Sully define perception as that process by which the mind "supplements a sense-impression by an accompaniment or escort of revived sensations, the whole aggregate of actual and revived sensations being solidified or integrated into the form of a percept, that is, an apparently immediate apprehension or cognition of an object now present in a particular locality or region of space."² This definition plainly recognizes two related elements or aspects in perception, namely, the fusion of sensory and ideational material and the consciousness of objects in a particular part of space. To the second of these aspects, however, James and Sully make little further reference, almost all of their accounts of perception being devoted to the mechanism of selection, fusion, *etc.*, of mental content. Wundt makes perception a particular kind of apperception, and his entire interest is centered upon the way in which different parts of mental content get interrelated.³ Following these great authorities, and possibly also as a result of the experimental point of view so dominant to-day, the majority of American psychologists, both structuralists and functionalists, have confined their attention to the selection and fusion of mental content found within the percept, implying at least by their silence that nothing more is discoverable within the perceptive process.

² *Principles of Psy.*, Vol. II., p. 79. Sully's *Outlines*, p. 153.

³ *Outlines of Psychology*, section on "Consciousness and Attention."

Thus Miss Calkins makes perception "analyzable into irreducible sensational elements."⁴ Breese defines it as "the consciousness of the qualities of an object synthesized into an object;"⁵ Yerkes makes it a psychic complex consisting "wholly or chiefly of sensations or images,"⁶ while Judd and Angell treat it in essentially the same way. One of the two definitions of the object of consciousness contained in the official Delimitation of Psychological Terms, issued by the American Psychological Association in March, 1918, expresses very exactly this point of view; it explicitly identifies the object of consciousness with "the content of consciousness viewed as a term in the subject-object relation." The other definition proposed in the same official circular leaves room for, and in fact suggests, the distinction between object and content which so many writers on perception have failed to make. The object of consciousness, namely, is here defined as "that of which the subject of consciousness is aware."⁷ Two recent American writers, moreover, have gone into the question with some care and attempted an analysis of the situation, an analysis which has at least made it clear that perception is by no means so simple an affair as to be capable of adequate treatment by a mere description of content. "We must admit," says Pillsbury, "that the naïve mind and all minds in naïve moments deal directly with objects. Secondly, these objects are not merely compounds of mental elements. . . . All that is intended is never given in the mental states. The mental content merely means what we are thinking about; it does not reproduce it or constitute it."⁸ Unfortunately Professor Pillsbury leaves the matter here, devoting all his efforts to the problem already so often solved of the manner in which the mental elements fuse to form the percept. Titchener goes farther than this. "Perceptions," he writes, "are selected groups of sensations, in which images are incorporated as an integral part of the whole process. But this is not all; the essential thing about them is still to be named: and it is this—that perceptions have meaning. No sensation means; a sensation simply goes on in various attributive ways, intensively, clearly, spatially, and so forth. All perceptions mean; they go on, also, in various attributive ways; but they go on meaningly."⁹ "Meaning," then is "the essential thing" in perception. On analysis, however, meaning turns out to be "context"—"one mental process is the meaning of

⁴ *A First Book in Psychology*, p. 63.

⁵ *Psychology*, p. 197.

⁶ *Introduction to Psychology*, Chapter XIV.

⁷ *Psychological Bulletin*, March, 1918, p. 92.

⁸ *Fundamentals of Psychology*, pp. 268-69.

⁹ *A Text-book of Psychology*, p. 367.

another mental process if it is that other's context." "The organism faces the situation by some bodily attitude and the characteristic *sensations* which the attitude arouses give meaning to the process which stands at the conscious focus, *are* psychologically the *meaning* of that process."¹⁰ In other words, while Professor Titchener seems to feel very strongly that perception is more than a combination of sensations and images, he comes back after his analysis of meaning to a position not essentially unlike that which he seemed at first to be attacking. If we take into account both those images and ideas which are the immediate content of consciousness and also those which constitute the "context" of this content, then on Professor Titchener's theory, perception will after all consist of nothing but sensations and images.

If we would find a really determined attempt to analyse that aspect of perception which is probably implicit in the common assertion that perception is "consciousness of objects," and which seems to be nearly explicit in the latter part of the definition quoted from James and Sully, we must turn to the English psychologists. Professor Stout and Professor Ward are more keenly aware than any American psychologist of the inadequacy of that view of perception which would make it merely a fusion of sensations and images. "Perception as we know it," writes Professor Ward, "involves not only recognition (or assimilation) and localization or 'spatial references,' but it usually involves 'objective reference' as well. We may perceive sound or light without any presentation of that which sounds or shines; but nevertheless we do not regard such sound or light as merely the object of our attention, as having only immanent existence, but as the quality or change or state of a thing, an object distinct not only from the subject attending but from all presentations whatever to which it attends."¹¹ In similar vein Professor Stout insists that external objects "are cognized as existing independently of us, just as we exist independently of them."¹² The realization of this independence and externality forms an essential part of the experience which we know as (external) perception. "The external thing does not consist for us merely in the sensible features by which it is qualified. There must be something to which these sensory contents are referred as attributes." This reference, in Professor Stout's opinion, is brought about "by the projection of the self. The not-self which forms the indispensable nucleus or inner being of the external object is apprehended

¹⁰ *Loc. cit.* Italics mine.

¹¹ From Ward's article on Psychology in the *Britannica*.

¹² *The Groundwork of Psychology*, p. 90.

as in some degree a counterpart of our own subjective existence, and in particular as exercising a motor activity and as having a continuous existence more or less like our own.'¹³

I am not concerned to defend Professor Stout's theory of the projection of the self, though I think much may be said for it. But I am convinced that no theory of perception can long remain satisfactory which does not specifically recognize that in every case of external perception we consciously apprehend the object as "exercising a motor activity and as having a continuous existence." Perception in other words, has two factors, the sensory and ideational content, upon which exclusively the majority of psychologists have centered their attention, and the *meaning* and *outer reference* which we have found recognized in part by Pillsbury and Titchener, Stout and Ward, and apparently also by James and Sully. As I watch my own processes of perception, this outer reference seems to have two closely related aspects: it is both a meaning and a tendency to reaction. Both of these, moreover, presuppose an implicit recognition of a world independent of my consciousness but sustaining dynamic or causal relations with my experiences and emotions. This recognition is of course not an explicit thought—perception is much too immediate for that—but it is implicitly there in the background of consciousness none the less, and this is one of the things that differentiate perception from sensation. The infant's chaos of meaningless sensations grows into the adult's world of things through the fusion, on the one hand, of certain sensory and ideational qualities, and on the other by the development of partly instinctive and partly habitual attitudes of reference and reaction. The child's notion of an external dynamic world grows up hand in hand with his notion of himself, and his attitudes toward this world are as genuinely parts of his perceptive process as are the fusion of sensory content which results in what we have learned to call the percept. In the act of perception there is ever the consciousness that one is dealing with an independent and dynamic outer object and it is this external object, and not just a group of sensed and remembered qualities, which one means and toward which one tends to react in perception. Through the force of repetition a given group of qualities comes to suggest certain future experiences; but these experiences are not all that the quality group means to the perceiver. It means to him primarily an active center, independent of his perceiving, but capable of producing the interesting experiences in question. Since the concept of an active, independent, external world is present implicitly in every act of adult perception, it is impossible

¹³ *Loc. cit.*, p. 97.

to maintain successfully, as Professor Titchener seeks to do, that the *meaning* of a percept is exhausted in the sensations which are its "context." We mean not so much future experiences of our own as outer objects which may cause those experiences and of whose presence and activity the given group of sensations is a token. We are enabled to mean an external object which is more than our immediate content because we have, as mature men, built up a concept of an external and independent world, and also because we are endowed with certain instinctive reactions upon that world. Our ability to mean an object other than the group of qualities immediately sensed is in part an application of our general implicit recognition of an external world, in part a corollary of our instinctive reactions to that world.

The quality-group actually found in perception—what psychologists usually call the percept—is thus but one part of the perceptive state or process. Its function moreover is now plain. It stands, namely, as a token of the presence of the object, it puts us on our guard or prompts us to react toward it. It is an exaggerated intellectualism in our psychology which has tended to exhaust perception in the percept; the percept is there not so much for its own sake as for the sake of guiding our action upon the external environment. Its function is to act as a symbol of the object which we mean and to which we intend to react but which is seldom or never identical with it. The percept *means* more than it is.

This view of the psychology of perception is not without its bearing upon epistemology. For a realism which takes its stand upon the testimony of immediate experience and the analysis of the more careful psychologists, insisting that "the mental content merely means what we are thinking about but does not reproduce it or constitute it,"—such a realism, I say, will be able to avoid *both* the difficulties which have proved so serious for its predecessors. Such a realism, taking its cue from the psychological view of perception just suggested, will make a sharp distinction between object and psychical content. What is before the mind, what one means and reacts to, it will not confuse with that which is *within* the mind, whether regarded as a psychic state or as a *datum*. The function of a percept will thus be seen to be that of standing for and pointing to the object, that by means of which we perceive the object; it will no longer be confused with the object itself. This view of the percept and its function will perhaps be clearer if we consider the analogous case of the place and function of the concept in thought. When I think of Napoleon my object is surely Napoleon, and not my mental content, my concept of him. Object and content are thus

quite distinct. But I can not think of Napoleon without a concept; my concept is thus the tool by which I think of him. To have a concept is to conceive. In like fashion, when I see my friend bodily before me, he is the object of my sight, it is he that I see, not my percept. Surely he is not just my percept—as if I were the Absolute dreaming my dream. He has a being of his own, independent of my sight. But I see him by means of my percept. If I had no eyes I could not see him; if I had no optic nerve and no visual cerebral centers I could not see him; and if any part of this physiological apparatus should fail to function so that I had no visual percept of him I could not see him. A percept is thus one of the tools I use in perceiving; and to *have* a percept (with the correlative attitude and meaning) is to perceive.

A little reflection will, I think, make it plain that this distinction of content from object makes it possible for the realist easily to avoid the difficulties which, as I have pointed out, are so disastrous to both Locke and the neo-realists. Since real things rather than “ideas” are recognized as our objects, knowledge of reality and veridical perception again become possible; and for the same reason a place is also made for the possibility of mistake and illusion. It also becomes plain that the root difficulty in both the other schools of realism is to be found in the view which they have in common, namely, in their confusion of content with object. For be it noted that in spite of the ridicule which the neo-realists would pour upon Locke’s doctrine, they share with him (and for that matter with Berkeley) the view that our percepts (viewed not, indeed, as psychic states but as quality groups) are our objects—that our objects are just the groups of qualities or “neutral entities” which we directly find. Now if my object is numerically identical with the immediate content of my consciousness then plainly there is no possible place for the facts that physiological psychology has to tell concerning the processes by which my (external and independent) object produces or influences my conscious content. I say this because it seems to me that for an object to start a chain of vibrations which eventually result in its own creation, is a task compared with which the lifting of oneself by one’s bootstraps would be a simple parlor trick. Divergence in time between the perceived event and the perception of it also is out of the question if my object is my percept. The difficulties which neo-realism has found in the explanation of error and illusion, moreover, can be seen plainly to flow from this same fundamental misinterpretation of perception; for if my object is just my content it is inconceivable that I should ever be mistaken about it. But by a rectification of this fundamental mistake con-

cerning the nature of perception and the function of the percept, realism may become at least a truly tenable doctrine.

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PSYCHOLOGY AND SCIENTIFIC METHOD

I. ANIMISM

OUR age interprets everything differently from any previous age of the world because of its individualistic bias and preoccupations. The element or unit—social, political, economic, logical—has achieved a unique reality of its own, and, in turn, claims a distinct ontological, or at least methodological status. Now this status, like the commercial credit of a nation, is in a certain sense an artefact; it is real as the ideal is real: it is only in part actual. Political democracy has had a guiding fiction of this sort for over a century, an ideal reality which is undergoing a transformation, before our very eyes, into a still different ideally real form in terms of what we call industrial democracy. This transformation is taking place by reason of the new demands of the actual. Never has the guiding fiction been unreal, but it has at times lost touch with the situation which generated it: at such times it has turned for security from its original methodological utility and set up for itself a claim of ontological validity. The problem of the world just now is the difficult one, in the midst of the momentous actualities of the present, of recognizing the real in the emerging, without repudiating it in the passing, ideal.

The same is true of that part of human activity and interest which we have come to call psychology. Like every other science, like every other art, like every part of the life of every individual or group of sentient creatures whose behavior is not wholly statable as mere immediate response to stimulus, psychology has had, now has, its guiding fictions. At a time when the soul could be conceived as a finer form of matter (as air or moisture or fire) diffused through external objects as well as through the body itself—a form of matter which is breathed in and out, perhaps, to maintain the balance of vital with environmental forces, and which, in perception, is conceived to be transmissible in diaphanous films from the object to the sense-organ—at such a time we see the psychological ideal in process of becoming disengaged from the actual. It still stands very close to the facts; hence the power of such primitive conceptions to compel our attention: we find ourselves in any new formulation, as in recent behaviorism, going back, in principle, to a kind of animism.

Now what does this mean except that our postulates in any science derive from our experience, are indeed a part of experience used to interpret another part. The presuppositions of our science are our playful, our experimental, our semblant handling of the world in the effort to understand ourselves. It-is-as-if: such is the history of philosophy and of science. And every little pretense of being what we are not has left us more just that which we pretend. Pythagoras pretended that we human beings, like the ordered world of stars and stones about us, are ruled by mathematical norms. Christian theologians played with the idea of a transcendent or immanent Logos. Galileo led us in the game of likening the world to a play of forces—as in a mechanism or machine. Darwin thrills us with the picture of a world that is born and grows and dies. And now psychology—at last come to its own—plays with the playing itself: our lives are lived, it discovers, increasingly in terms of a world we make, decreasingly in terms of a world we find.

It is the culmination of the As-if in man: the data of the science lie within, are obtained by a unique procedure called introspection, and tend to become reified as an order ontologically real in itself. It has out-if-ed itself; like some war-dance of savages, it has forgotten itself, as they at times forget their dance is mere play and turn to killing each other in dead earnest. Such is the history of psychology: a kind of *auto-da-fé*.

II. PSYCHOLOGISM

If now we seek to get back to the logically playful attitude of our postulates, perhaps we may discover the point at which we fell into these self-destructive incompatibilities. If, as in all science, we recognize that our psychological laws and principles are merely our ways of conveniently handling our environment in the effort to shape it to our ends; or, perhaps we should say, if we recognize that our science is our experimental fumbling with the forces about us in order to find out just what our ends are, just what our desires and interests may be, stated in terms of fresh predicaments—if such is our conception of that part of our behavior which we call scientific in relation to other parts of our behavior, then obviously we have abandoned the playful attitude (and by implication are no longer masters in the situation) if at any point we have mistaken, like the savage warriors, any part of our play-technique for the actuality itself.

And this we seem to have done in the history of our dealings with mind. So true is this that the very phrase I have used in the previous sentence will not strike the reader at first perhaps as in-

congruous with the new point of view. We have come to speak of mind (and the same is true of matter in the physical sciences) as if it were a given actuality instead of a mere directive ideal or conceptual shorthand in our method of managing the actual. Or, to put it in another way, we have missed the distinctive fact about ourselves as the group of animals called human, *viz.*, that we do live, as the other animals do not, in terms of the remote stimulus and the delayed response; philosophically stated, we live in terms of an indefinitely complex system of intermediary means to the ends represented in our inherited trends and our acquired drives; or, once more, we live in an ideally as well as in an actually real world.

The hypostasizing of our handling our instruments, our means, our symbols, is just, then, the most fatal mistake we could make in our effort to understand ourselves and the universe about us. It is fatal, not because it substitutes an artefact for the fact, but because the substitution has been made unwittingly. Science continually makes such substitutions for its own purposes—in its temporary methodological hallucinations—and thereby discovers, perhaps we should say creates, new validities, if not new values. But in this conscious self-illusion of scientific method the fresh insights are assimilated to the actual, whereas in the pursuit of the *ignis fatuus* of an unconsciously hypostasized abstraction, the fiction is brought to the test only of the fictitious and the methodological cat jumps at its own conclusions world without end.

Psychology has been chasing its own tail. That autoerotic ecstasy could have been brought to a halt only by the inrushing impetus and impatience of the dog of scientific method under the name of behaviorism—the ancient enemy of every form of methodological autointoxication. But turning, however reluctantly, from the enticing metaphor, lest I too become enamored of its ineluctable round, what I mean is that since the time when the primitive behaviorist attituded the truth in his animism, down through the instructive gropings of the Greeks, the logical introversions of the Scholastics, to the double vortex of modern parallelism, we have been gradually turning our increasing facility with symbols into a means of self-destruction logically, much as we have elsewhere been using our scientific control of the forces of nature to exterminate the human race.

But perhaps a bolshevist behaviorism has glimpsed a new order of things and the self-inducing cat of introspectionism can marry the dog of scientific method. At any rate let us, in infantile phantasy, envisage the union; the words, concepts, meanings, symbols we have been using in psychology (whether of Mediterranean or of

Anglo-Saxon origin) originally signified some extension of an actually appropriated situation into outlying regions of possible response. A primitive methodologist, be he caveman or Greek Sophos, when he wished to thus reach out into the unknown or partially known about him, to control it, and as part of the process of controlling it, to state it, said he breathed it. Breathing it (*psyche*, *pneuma*, *spiritus*, *anima*) thus becomes a new personal-social instrument for dealing with it. An idea is an image, a shape, a form, a film-impression or copy of the object which fits the sense-organ of the perceiving subject: knowledge is like fitting into like. Such are the practical, appropriative, participative origins of psychological nomenclature and method. A Plato derives his classification of the faculties of the individual from the social classes of his time and their respective functions. An oriental religious cult striving to maintain itself in an occidental context fabricates a kingdom not of this world in which it is triumphant, and, looking about in the abundance of the Greco-Roman culture for the forms with which to give this artefact stability and prestige, it finds these breath-words and film-words and turns them to its purposes. Under the influence largely of this religious interest, the hypostasizing of abstractions began—the fixation of fictions as fact. The history of European thought in modern times has been largely the more consistent carrying out of this entifying of the fiction. In Descartes and Spinoza the ontological work is complete and the stage is set for that tense modern drama of confrontations known as scientific method. British empiricism disturbs the dogmatic slumber of an ontophilic philosophy only itself to fall into a vicious tail-chasing solipsism, leaving psychology, however, with its bad dreams which suggest an anxiety-state.

And here we are with our parallelistic non-intersecting perpendicularism. Doubtless, with our inverted and reversed double images we see things right side up and single by supposing the soul stands on its head and is cross-eyed and temporarily, as Hegel would say, beside itself, its own other. An anxiety-state often develops into dementia precox or paranoia if its phantasies become introjected upon itself or projected upon the external world. Psychology, with its paranoiac parallelism and its precocious introspectionism, is a gigantic compensation, in the Freudian sense, for the failure in actuality, during the centuries, of the human individual to achieve the control his fictions and his symbols promised. Failing, as a fact, in getting the satisfactions he craved, he hallucinates a realm, and a science of it, in which he may: this is the traditional consciousness-psychology.

But, just as a nominal democracy is at last finding its way through the political fictions to the economic fact of freedom, so the science of the experiencing individual is finding its way, too, amidst the maze of introspectionist reifications and ontological⁴ hallucinations to a new bearing of all these in the actuality of behavior.

III. BEHAVIORISM

What, then, is this Consciousness of which we have heard so much; what is it as an actuality? We are only too familiar with it as a guiding fiction, so familiar with it that we have forgotten its fictitious character and taken it for the reality to which it was to guide us. The very language of science, since Descartes, is saturated with the implications of an ontological dualism; it is part of our cultural inheritance. We can only escape the logical astigmatism and strabismus which result from such defects in our very organ of perception by recovering, as we may, the original innocence of the uncorrupted eye. This, behaviorism has succeeded in doing, and thereby for the first time has placed psychology among the sciences; for this is the mark of science that, with all acknowledgment of individual interest and bias and preoccupation, the investigator approaches his subject-matter as nearly as possible from the standpoint of the impartial spectator. The psychologist in the past has not been doing this: on the contrary he has erected his bias, his interest, his preoccupation into a tenet of his creed, made it the foundation-stone of his method (introspection). He was not a scientist but a modern methodological mystic.

Turning, then, as innocently as we may, to an original and first-hand inspection of the facts answering to the convenient fiction called Consciousness, what do we find?

We find, for one thing, that consciousness is a social as much as it is an individual personal category. In consciousness the members of society become functions of each other. Consciousness is con-consciousness: a knowing together—not merely a knowing together of things but a together knowing of them. The very evident origin of our cognitive apprehension and comprehension of things is to be found in manipulation. Does not our thinking still bear the marks of the inner speaking which it is and always has been? For a long time we have realized that our emotions are the survival of adaptive modes of response of our animal forebears. Our consciousness is but a name for the echo-folk of our ancestry; it is the reverberation in the arrested acts of accessory musculatures of old action-systems that once were swept only by the overt response of the fundamental trends. As hand and snout, and thus incidentally the

larynx, became freed relatively from the primary urgencies of the struggle for life, and as the freed hand widened and complicated the natural environment by the artificial weapon and tool, the larynx took up the function of elaborating a system of intermediaries or symbols for individually and socially handling this increasingly intricate situation. Insufflations and cries and grunts and hesitations became language, the receding stimulus and the postponed response became the meanings these laryngeal articulations mediate.

Consciousness is the particular laryngeal gesture we have come to use to stand for the rest; nor is it impertinent to recall that sagacity means the ability to nose out the truth, and that ken means can. A knowing person, or a child who has reached the age when he knows what he is about, differs from another kind of person by virtue of having a social-personal technique the other lacks. Knowledge is power in the literal sense of the word: it is grasping, handling, the situation effectively. When the instrumentality or symbol lies outside of the organism, even the traditional psychologist finds no difficulty in assigning it its proper place in action or behavior. It is only when it lies within the organism itself that any difficulty appears and the necessity for an ontological dualism is supposed to arise. The organism as a very complicated part of nature is in a continual process of maintaining its integrity by intraorganic tensions and equalizations. In this endless approximation to a dynamic balance certain activities come to stand for certain other activities, for other activities either within or without the body. With the elaboration of the vicariating function of the larynx, at the advent of man, the behavior of the animal takes on rapidly the character of the conditioned reflex, so that the average educated cultivated human adult to-day reacts scarcely at all to things as they are in nature; he lives in a nature transformed by human nature. This means the indefinite postponement of the response along with the remoter recession of the stimulus, and consequently an increased emphasis on the importance of the intermediate machinery for maintaining these nice balances and adaptations. This machinery is to be found chiefly in the tonicities and tensions of the articulomotor apparatus, together with the similar innervations of the oculomotor and auditory action-systems. To a certain extent, of course, all the fundamental trunk muscles are involved, as also those involved in breathing, blood-movement, the secretion of glands and the visceral processes—especially as concerns what are called the unconscious and emotional processes. But it is the socially important articulomotor group of incipient and delayed responses that furnishes the clue to the nature of consciousness since these exhibit, in its clearest form,

the arrested act or attitude in its function as superinducing still other act-inducing attitudes. There is no limit to this function of the intermediary; or rather, the only limits are those of nature herself. Is it any wonder the psychologist found consciousness at once indubitable, immutable, indiscerptible, and indefinable! He couldn't define it because he was seeking to state it apart from the very processes which alone could give it any content or meaning.

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REVIEWS AND ABSTRACTS OF LITERATURE

Moral Values and the Idea of God. W. R. SORLEY. The Gifford Lectures delivered in The University of Aberdeen in 1914-1915. Cambridge University Press. New York: Putnam's. Pp. 534.

Professor Sorley himself summarizes for his reader in a series of propositions the critical steps in the development of his thesis that God is revealed in nature through the medium of value. The summary, even more briefly stated, is as follows:

1. There is a distinction between knowledge of the individual and of the universal. For example, the ideal of science is to terminate in universal formulæ, whereas history is concerned with the individual. The heart of the first proposition is that ultimate reality may be regarded as an individual. "Indeed," he says, "it may be said that nothing else has complete individuality" (p. 506).

2. In seeking complete understanding of any individual it is not sufficient to say that it must be analyzed and synthesized; we must in addition grasp the thing as a unity. This faculty of viewing an individual as a whole he calls synopsis, a Platonic term borrowed from the recent work of Dr. Merz. Thus science through analysis and synthesis may study the properties and the relationships of an individual, while there still remains that other aspect according to which we ascribe a certain worth to it. The two aspects are distinguished as the aspect of causes, and the aspect of value, the former tending to direct interest to the universal, the latter to the individual, since value resides in concrete existences exclusively.

3. The laws of value are unique. Value may be lacking to a thing but not so causal connections and other properties, and moreover intrinsic as distinct from instrumental values belong to persons only.

4. The intrinsic values have the same status of objective validity as have instrumental values or causal connections. For, as the author says: "The grounds for denying the objectivity of morality

are equally grounds for denying the objectivity of knowledge" (p. 508).

5. Since man recognizes moral attainments in terms of value, only because they conform with an ideal standard of value, that ideal moral order must be regarded "in some sense" as having objective reality.

6. If these five points have been established, it remains only to take the synoptic view of reality whereby we find that through the harmonious union of the aspects of cause and of value, and without destroying the world as science knows it, we do yet see in it the revelation of the personality of the "Supreme Value," or God.

7. The problem of evil, or the apparent lack of congruity between the natural order and the moral order, offers the main difficulty for any synoptic appreciation of the universe.

8. Other philosophical theories have failed to meet this problem.

9. Its solution lies in the recognition of two conditions: (a) Morality depends upon freedom, and hence persons realize moral values only imperfectly, since evil must be possible as well as good. (b) There must be purpose in the world as well as freedom in man, and that purpose is evidently that nature may serve as "a fit medium for the fashioning and training of moral beings" (p. 513).

10. This recognition of moral purpose solves the problem of evil and establishes God, the "Supreme Mind," as the ground of all reality.

The distinctiveness of Professor Sorley's contribution to the discussion of the relation of God to the world lies in the uniqueness of his approach to the problem. He seeks to prove the existence of God through the recognition of the objectivity of value instead of following the more traditional path of making value depend upon the existence of God. The clearness, fulness, and consistency with which the argument is developed leave nothing to be desired, and yet a reader, trained as the present reviewer has been in a different school of philosophical thought, puts down the volume feeling that Professor Sorley's conclusion is not inevitable because the logic by which it is reached is shot through with assumptions which are not empirically tested.

There is, for instance, room for divergence of opinion in regard to so important a point as Professor Sorley's discussion of the meaning of individuality as applied to things, to selves, and to the universe viewed synoptically. We may grant that individuality does not belong to a material thing of its own right, but is conferred upon it by persons, the individuality depending upon the purpose with which the person approaches it, or its distinctness from a fainter

context, and that there is no inner principle of unity in a thing, and yet demur when he says that herein lies the difference between a self and a thing. For Professor Sorley speaks of the nature of the self as constituted of something more than describable relationships and properties. The self has a "center" which is "perpetually gathering in new experience which expands the circumference" (p. 221). Also in his consciousness of his own identity he says that each man finds that "his individuality is rooted in the common center of reference in all his states of mind: they are experienced and recognized as his—as one in spite of their differences" (p. 221).

This is to admit that analysis alone can never fully describe the self. "In this respect, therefore, the immediate consciousness or intuition of self has more claim to be regarded as a whole than all the elements taken together which analysis has discovered in it. And there is something else of far greater moment which the analysis must always fail to give" (p. 263).

This spiritual bond, which the analyst can not detect, must be known by what Professor Bergson would call intuition, and what Professor Sorley calls knowing by wholes or synoptically. Although this synoptic view is quite independent of analysis in attaining its conclusion, yet it is not without checks, for Professor Sorley says: "It must show that its interpretation is accurate by submitting to empirical tests—by its ability to give a coherent account of those facts which it is the business of the analytic understanding to exhibit in detail" (p. 270). One wonders, can this be done? Can one be both intuitionist and empiricist? Certainly in regard to the self Professor Sorley's synoptic view has not thrown more light upon its nature by saying that it has "a center," "an inner unity," "a sense of life," "a spiritual bond." This is equivalent to the common sense intuition of a soul or mind which has qualities or states of consciousness, but which itself escapes analysis, and it is far from being "a coherent account of those facts which it is the business of the analytic understanding to exhibit in detail." It does not explain. It stops explanation. It leaves Professor Sorley the difficult legacy of an ego, or willing and knowing center, which, in a way not clearly indicated, enlarges its circumference (*cf.* p. 221) by annexing things and relationships which fall within the scope of analysis.

Nor yet is the synoptic account of the universe more satisfactory than that of the self when tested by the standard Professor Sorley himself submits. We are able, so his argument runs, to recognize in the world of nature a moral order as well as a natural order. This moral order is not subjective; it is objectively realized in the conscious strivings of mankind (*cf.* pp. 508-509), but although realized

thus, it is at best an imperfect realization, which however "enables us to attain a certain insight into the purpose of the whole" (p. 465). Here once more intuition outleaps analysis and gives us the mind of God as the agency of the eternal realization of the values which the world sees incompletely realized in human lives. "The moral order expresses the divine nature; and things partake of this nature in so far as they conform to that order or manifest goodness" (p. 466). This also: "God must therefore be conceived as the final home of values, the Supreme Worth—as possessing the fullness of knowledge and beauty and goodness, and whatever else is of value for its own sake" (p. 474). "In all goodness we must see the manifestation of the divine purpose, in all evil a temporary failure in its realization" (p. 473).

This view finds most complete expression in the chapter entitled "Theism," from which I quote: "If we do not interpret the world as purposive, our view of it can not find room for both the natural order and the moral order. If we do interpret it as purposive we must attribute an idea and purpose of good to the ground of the world" (p. 454).

It is his passion for what he believes is true philosophy which prepossesses Professor Sorley in favor of this conclusion. He repeatedly states that the business of true philosophy is to achieve what I shall call the grand view (*cf.* pp. 509–510). This persistent search for totality and for perfection is evidence that philosophy is still, for some, more of an art than a science, and the intuition which it glorifies under the name of philosophical insight is, as a scientist would protest, a dangerous substitute for the philosophical method which William James has described as "an unusually obstinate attempt to think clearly."

Yet Professor Sorley is not alone in his attitude, for a host of distinguished thinkers, as well as many in the rank and file of mankind, would agree with him as to the value of this synoptic insight and the conclusion to which it brings him, that the moral order is an eternal order which serves as a limit toward which personal life tends in its temporal course (*cf.* p. 241). That this ideal standard is a part of reality existing independently of human failure and denial, comforts and inspires him, as it has comforted generations of men. But the radical empiricist finds no comfort in it, for, when he tries to understand it, he does not find that it submits to empirical tests or offers a coherent account of the manner in which it affects his and his neighbor's living. He finds, moreover, as one of our American philosophers has said, that ideals are continuous with natural events and that they but represent the possibilities for conduct of the concrete situation which he faces.

According to the empiricist's view, the problem of reconciling the natural and the moral orders is as artificial as the problem of evil. Both of these problems have their source in certain theistic assumptions, and so persistent are they that unless one assails these assumptions, as the empiricist does, not all the eloquence of apologetics can leave them anything but problems. Professor Sorley feels that he has solved the problem of evil, but it is a question whether by ascribing instrumental value to evil he has not denied rather than explained its existence.

Just as the empiricist finds that moral values grow out of concrete situations of conduct, so he finds that the standard of morality, far from being eternal, is a social product, created in the course of living by the relatively constant physical needs of the human animals who have painfully achieved morality. He sees whole nations struggle almost to the death to preserve ideals of right and justice, even as he sees individual men devote themselves to this same cause. What possible difference can it make to them in their struggle whether the good they strive to accomplish here and now is already eternally existent in the mind of God? It is difficult to see how that knowledge could avail them as much as the knowledge that it is a potentiality of the natural order. Professor Sorley himself demonstrates that goodness, or indeed any value, has as much objectivity as any other quality and one wonders why, if the continuity of the moral order with the natural order is thus established, it is necessary to go further to find a ground wherein the unity of the two may be located. One is tempted to apply to this concept of a ground of union both the method and the result of Berkeley's examination of substance.

Indeed this metaphysical difficulty is even more profound than the ethical. I quote these sentences as illustrative of what I mean: "On this view the world as a whole will be regarded as animated by a universal conscious purpose, which is expressed not only in its arrangements and laws but also in the finite purposes, conscious and unconscious, displayed by individual living beings. This view, however, is not put forward as a doctrine which can be rigidly demonstrated. It is part of that more comprehensive synopsis according to which we have been trying to understand the world as instrumental towards the realization of values" (p. 427).

Here we are asked to recognize in the world as a whole something as inscrutable as the soul which so long halted psychology. The universal conscious purpose is used to mediate between the natural and the moral orders precisely as the soul has been supposed to mediate between the body and conscious states. The difficulties to which this

leads are obvious, the contribution it makes to our understanding of the world is obscure.

Yet, although one may differ with Professor Sorley on many points, one can not but be so impressed by the spirit of reasonable openmindedness pervading his lectures that one wishes he might offer the points of difference as questions for discussion before a study fire, rather than record them as one more instance of the disagreement between the idealistic tradition and that newer philosophy which received its initial inspiration from the later work of William James.

ETHEL E. SABIN.

BRYN MAWR COLLEGE.

JOURNALS AND NEW BOOKS

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. February, 1919. *Note sulla filosofia di Cicerone* (pp. 5-22): EMILIO CHIOCHETTI. - Cicero is the founder and the most genuine representative of Roman philosophy. He is not a deep philosopher, and he often fails to grasp the systems he opposes; but, even in his shortcomings, he fairly represents the Roman spirit. *La Provvidenza* (pp. 23-43): MARIO STURZO. - Divine Providence primarily consists not in an external action of God upon creatures, but in an intrinsic virtue, which is attached to the particular beings, and leads them to their ends. *Il concetto del tempo nei suoi rapporti coi problemi del divenire e dell'essere nella filosofia greca sino a Platone* (pp. 44-68): ADOLFO LEVI. - A study of the conception of Time in ancient Greek poets and mystics. *Note e discussioni. Analisi d'opere*. G. ZUCCHINTE, *Correnti di letteratura pessimistica al nascere di Schopenhauer*: P. C. F. BORGONCINI-DUCA, *Il profilo di S. Agostino e la genesi della dottrina agostiniana intorno al peccato originale*: V. BIANCHI-CAGLIESI. G. B. BIavaschi, *La concezione filosofica dello Stato moderno*: A. GEMELLI. Luigi Ventura, *La concezione nazionale dell'educazione secondo Fovillee*: F. OLGATI. G. Celi, *Nuovi elementi di filosofia ad uso specialmente dei licei*: F. MARZORATI. *Notiziario*.

THE PHILOSOPHICAL REVIEW. January, 1919. *The Psychology of the Affections in Plato and Aristotle. II. Aristotle* (pp. 1-26): H. N. GARDNER. - Treats of Aristotle's account of pleasure as given in the tenth book of the *Nicomachean Ethics* and of the emotions as given in the second book of the *Rhetoric*. Throughout Aristotle's aim is practical, either to relate pleasure to the moral end, or to relate the emotions to the art of persuasion. The method is empirical. A detailed analysis of Aristotle's views of pleasure and of the emotions is given. *The Place of Pleasure in Ethical Theory*

(pp. 27-46): A. K. ROGERS. — The thesis is that "any sort of fact approved as good will be found to be the sort that gives rise to the feeling of pleasure or satisfaction in experience." This thesis is not taken to mean that pleasure is the end of action. Action starts from impulse and instinct. Pleasure is the *sign* that "the constitutive demands of our nature are being met." Distinguishes this position from historical hedonism and defends it against objections. *The Notion of a Deterministic System* (pp. 47-68): C. A. RICHARDSON. — A critical examination of the case for determinism as set forth by Mr. Bertrand Russell in the essay "On the Notion of Cause" recently reprinted in *Mysticism and Logic*. States and analyzes Mr. Russell's view and shows how "it fails in its application to this universe of ours." *Discussion: The Formal Ego* (pp. 69-77): JAMES LINDSAY. *Mr. Moore's Refutation of Idealism* (pp. 77-84): A. K. ROGERS. *Reviews of Books: Proceedings of the Aristotelian Society, New Series, Volume XVII*, WARNER FITE. William Ernest Hocking, *Human Nature and its Remaking*, H. G. TOWNSEND. *Notices of New Books. Summaries of Articles. Notes.*

Leighton, Joseph Alexander. *The Field of Philosophy: An introduction to the study of philosophy*. Second edition. Columbus, Ohio: R. G. Adams & Co. Pp. xii + 485.

Pikler, Julius. *Schriften zur Anpassungstheorie des Empfindungsvoranges*. Erstes heft: Hypothesenfreie Theorie der Gegenfarben. Zweites heft: Theorie der Konsonanz und Dissonanz. Leipzig: Johann Ambrosius Barth. 1919. Pp. 133.

Pikler, Julius. *Sinnesphysiologische Untersuchungen*. Leipzig: Johann Ambrosius Barth. Pp. viii + 513. M. 18.

NOTES AND NEWS

THE AMERICAN PHILOSOPHICAL ASSOCIATION makes the following preliminary announcement:

The nineteenth annual meeting of the American Philosophical Association will be held at Ithaca, N. Y., on December 30 and 31, in acceptance of the invitation of the President and of the Department of Philosophy of Cornell University. The sessions will begin on Tuesday morning and will continue through Wednesday afternoon.

In order that there may be a full attendance at the first session of the meeting, it is suggested that members plan to arrive on Monday in time for an informal meeting in the evening.

In accordance with the plan pursued at the last meeting of the Association, the Executive Committee has chosen for the main topic of this year's meeting the subject "The Nature of the Community,"

and has appointed as the leader of the discussion Professor W. M. Urban, of Trinity College, who in turn has chosen Professor Rosecoe Pound, Professor Harold J. Laski, Miss Mary P. Follett, Professor J. H. Tufts and Professor Morris R. Cohen. The papers of the leaders will be printed in the forthcoming (November) number of the *Philosophical Review*.

Members of the Association are invited to contribute papers to the discussion. There will be an opportunity, through two or more sessions, for the presentation of papers on other problems of philosophical interest. Papers will be limited to twenty minutes, unless extended by special arrangement. Members are requested to send to the Acting Secretary, not later than November 15th, the titles, and, if possible, the abstracts, of papers they propose to read. The final program will be sent out early in December. Abstracts for publication in the *Proceedings* are limited to four hundred words, and must be in the hands of the Secretary by December 31.

The Executive Committee is directed to invite members of the Association to suggest topics for the meeting of 1920. Such topics should be sent to the Secretary as soon as possible, in order that careful consideration may be given to plans for the ensuing year.

Membership blanks will be furnished on request, and should be so filled out as to give full information regarding the candidate's qualifications. It is requested that nominations for membership be made as early as possible, and not later, in any case, than December 1.

All requests for room reservations at the Association meeting should be addressed to Professor J. E. Creighton, Cornell University, Ithaca, N. Y., and should reach him not later than December 10.

In view of the care expended upon the discussion program, and in view of the fact that several of the speakers are guests of the Association, it is warmly urged that members make a special effort to attend, and to make the meeting as fruitful as possible of results.

(Signed) H. A. OVERSTREET,
Secretary.

COLLEGE OF THE CITY OF NEW YORK,
NEW YORK CITY,
October 15, 1919.

SPECIAL NOTICE

COMMENCING January 1, 1920, the subscription price of the JOURNAL OF PHILOSOPHY will be \$4.00 a year.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

REASON AND COMMON SENSE

Critical reason, especially the metaphysical brand of it, often runs counter to naïve reason, otherwise known as common sense. While this is no justification for rejecting the philosophical conclusion out of hand and absolutely, it is nevertheless a challenge to reexamine its grounds. Common sense has triumphed over some old scraps of philosophy, and it is rather likely to triumph over some that are not so old. It is time to sound a note of warning to philosophers not to be too reckless in flouting common sense.

Zeno thought he had proved that Achilles can not catch the tortoise; that, in fact, all motion is impossible; that all things are really at rest; that what we call motion is mere appearance. Common sense rebelled against such absurdities, and its verdict is now sustained by critical reason.¹

Kant thought he had proved his antinomies, *i. e.*, that certain pairs of contradictories are both true. Critical reason now concurs with common sense in the conviction that, though Kant's theses and antitheses may in some fashion all be considered fairly demonstrable, it is only because they are to be understood in different senses. Contradictories can not both be true in the same sense.

Some vagaries of recent philosophizing stand a good chance to meet, at the hands of common sense and enlightened critical reason, the same fate that has befallen these older gems of metaphysical wisdom.

The starting post on the modern road to "astonish common sense" is the *point*. It has position only, but no extension. Hence we can pack millions of points in the tiniest space, like the devils dancing on the point of a needle in monkish philosophy. Points are tricky, too, like the imps aforesaid. Their unique quality of lacking extension, so that we can neither see them nor touch them nor hold them down to any sort of sensible ordinary behavior, makes them very slippery customers. We have to be careful how we talk about them. If one says that there are as many points in an inch as in a

¹ Cf. Spaulding, *The New Rationalism*, pp. 166-68. Cf. also Montague, *Studies in the History of Ideas*, pp. 245-48.

million miles, because the number is infinite in both cases, we can not conclusively deny it, though we may prefer the more cautious form, "there *may be* as many." The objection to the positive statement is that every positive assertion is a limitation, and an essential mark of the infinite is the absence of all limits. To say that the number is the same in both cases implies that we have "thought around" both infinities, encompassed them, bounded and determined them in thought so that we know they are equal. But whatever can be thus determined in thought is finite, not infinite. Hence it is inconsistent with the vague nature of infinity to say positively that there are as many points in an inch as in a million miles. "There may be as many," is not quite such a shock to common sense, and it is philosophically safer.

We can treat instants in the same way as points. An instant is a time-point. It has temporal position but no duration, just as a space-point has spatial position but no extension. We can therefore safely say that there may be as many instants in a minute as in a year, for the number is infinite in both cases.

But can we say that "there are just as many years in eternity as there are minutes"?² Years and minutes are in a very different category from instants; they are temporal units of measurement, and unlike instants *they have duration*. We can not juggle with them as we can with points and instants. Since there are some half million minutes in a year ($60 \times 24 \times 365\frac{1}{4} = 525,960$), common sense would say that in any period whatever, whether finite or infinite, the years must be multiplied by half a million or more in order to equal the minutes. Possibly in the long run common sense may get the better in this argument. The burden of proof in all fairness rests upon the bizarre assertion, and how is its author going about to prove it? If some great benefit were certain to accrue to mankind by the demonstration there would be more encouragement to undertake the task, but the profit to any mortal is far to seek. Lost souls might indeed be deluded with the hope of a shorter term if every minute counted off a whole year. Otherwise the utility of this time-scheme is imperceptible.

As for the method of proof there is of course that ingenious device much in vogue just now of setting up a one-one correspondence between two infinite series. In this case one series will be made up of years and the other of minutes.

² W. Curtis Swabey makes this assertion in his article, *Mr. Bradley's Negative Dialectic and Realism*, this JOURNAL, Vol. XVI., No. 15, p. 411. Bertrand Russell says that the *days* and years "in all time" are equal. (*Mysticism and Logic*, p. 91.)

1st y., 2d y., 3d y. ... *ad infinitum*.

1st m., 2d m., 3d m. ... *ad infinitum*.

As Bertrand Russell naïvely remarks, "There are obviously just as many numbers in the row below as in the row above, because there is one below for each one above."³ It is true he was speaking of another case of one-one correspondence, but we have only to reverse "above" and "below" to adapt the remark to this case.

Now are the above infinities equal each to each, and both equal to the same eternity? Which eternity is meant, past, future, or the whole realm of Father Time, past, present, and future? Are these several eternities all equal, inasmuch as they are all infinite? Are all infinities equal? That point seems to be quietly assumed in setting up one-one correspondences running *ad infinitum*.

We are a bit suspicious of the soundness of this one-one proof. In the first place, asserting—or assuming—equality of infinities is inconsistent with the vague and indeterminate nature of infinity. But, in the second place, even if we ignore that objection, we have still to inquire in what respects infinities are equal. Those now under consideration are temporal infinities, year-and-minute infinities. Are they equal in actual duration or in the serial number of terms? The latter kind of equality is a necessary presupposition of the assertion that the years and minutes of eternity are equal in number. How then are they related in actual duration? The year-infinite looks as if it must be half a million times longer than the minute-infinite. Equality in actual duration of two infinities, the one made up of any number of years and the other of the same number of minutes, is a self-contradiction. But both must be equal to eternity—the same eternity too—to make good the assertion that the years and minutes of eternity are equal in number. And "equal to eternity" surely means equal in actual duration. Here then we have contradictory presuppositions of that bizarre assertion. Year-and-minute infinities must be equal in the serial number of terms, and they must also be equal in actual duration. The one-one proof is plump up against an *impasse*.

But some one may say, "infinities are infinities, just as pigs are pigs, and when you have run a series up to infinity there is nothing more to be said." Giving all due weight to that profound remark, still it is hardly to be supposed that any one would consciously and with grim determination maintain that all infinities are equal. That many do subconsciously assume it is evident. Let us see where that assumption would lead us. It would indeed be a fine scheme for proving anything we wish. Mill suggested that in some other world

³ *Mysticism and Logic*, p. 86.

—evidently a fancy-free sort of a world— $2 + 2$ may for aught we know equal 5. But by assuming equality of infinities we can prove that theorem for our own prosaic world.

$$\frac{2 + 2}{0} = \infty; \frac{5}{0} = \infty.$$

If infinities are equal then

$$\frac{2 + 2}{0} = \frac{5}{0} \text{ and } 2 + 2 = 5.$$

Also we can prove that $1 = 2$.

$$\frac{1}{0} = \infty = \frac{2}{0}. \therefore 1 = 2.$$

But instead of relying on an independent proof that the years and minutes of eternity are equal in number—a proof which limps painfully if indeed it gets on at all—suppose we simply fall back on our brand new definition of infinity. “The infinite is that which is in one-one correspondence with part of itself.” The reasoning may possibly run somewhat in this fashion: Eternity is infinite, and *by definition* is in one-one correspondence with its years, also with its minutes; therefore the years are in one-one correspondence with the minutes; therefore the years and minutes are equal in number.

There is a double confusion of ideas in this kind of reasoning. Years and minutes, by reason of having duration as well as temporal position, can not be handled like instants which have no duration. The instants in any period, however brief, may be considered infinite, and that opens the door for one-one correspondences *ad libitum*. We are never brought up with a sharp turn by any shortage of instants. Not so with years and minutes. In a century-series the year-terms would be just 100 while the minute-terms would be $100 \times 525,960$. No possibility of one-one correspondence in that case. No amount of stretching will serve to make up for the shortage of years.

Another kind of confusion appears in the notion of one-one correspondence of eternity with either its years or its minutes. We must break up eternity into pieces of some sort in order to get a series representing the “whole.” If the elements of eternity are taken to be instants, then years must be treated in the same way so that the “part” may be a “proper” part. We thus get a correspondence, but it is not the one we want—not eternity with years, but instants with instants. In fact there is no legitimate way to get the correspondence we want, either of eternity with its years or minutes, or years and minutes with each other.

In the case of some infinities the impossibility of a series representing the "whole" is obvious at once; the nature of the infinite in question distinctly resists and resents the conception of serial order. Divine compassion is infinite, but the idea of chopping it up into a series in order to set up one-one correspondence with part of itself, is ridiculous.

Of course we do not say, or imply, that any one has actually set forth in detail the line of reasoning sketched above for a possible application of the new definition of infinity; we are merely "supposing" a case. Yet it is highly probable that the new definition is in some vague way at the bottom of the conclusion that the years and minutes of eternity are equal.

Quite aside, moreover, from confusion of ideas in *applying* the new definition, there is another difficulty about this line of reasoning which is absolutely fatal to it. The new definition itself is based upon the same dubious assumptions and arbitrary forcing of serial relations in order to make out a specious appearance of one-one correspondence, which we have already found to involve absurd and impossible consequences. It is true that we may have a one-one correspondence of whole and part in the case of points and instants, but otherwise the correspondence fails, so that the definition is faulty in that there are many real infinities not in one-one correspondence of whole and part. This is conspicuously true of our next example of "astonishing common sense."

In the infinite series of whole numbers "there are *as many even integers as there are odd and even.*"⁴

The alleged "proof":

1, 2, 3, 4, ... *ad infinitum.*

2, 4, 6, 8, ... *ad infinitum.*

If this one-one correspondence is a sound proof in the case of even integers, we can extend its range indefinitely. Squares, cubes,

⁴Spaulding, *The New Rationalism*, p. 160. The same assertion "proved" in the same way, *i. e.*, by one-one correspondence, is found in numerous recent books and articles. It is one of the hall-marks of being up to date. William James is more cautious than other authors in his statements about integers. "Thus, in spite of the fact that even numbers, prime numbers, and square numbers are much fewer and rarer than numbers in general, they appear to be equally copious for purposes of counting." (*Some Problems of Philosophy*, p. 175.) Plenty of even numbers "for purposes of counting" is a proposition very different from "just as many even numbers as odd and even." But James immediately goes on to make his statement stronger. "Since every integer, odd or even, can be doubled, it would seem that even numbers thus produced can not in the nature of things be less multitudinous than that series of both odd and even numbers of which the whole natural series consists." We shall presently have a "look in" to ascertain the legitimate effect of this "doubling" process.

all sorts of powers or multiples, may be in like manner set forth in one-one correspondence with the whole series of natural integers.

1, 2, 3, 4, ... *ad infinitum*.

$1^n, 2^n, 3^n, 4^n, \dots$ *ad infinitum*.

The original assertion is sufficiently "astonishing" to common sense, but with high values of the exponent n the "astonishment" becomes fairly overwhelming. The numerical magnitude of the integers in the bottom row speedily passes clear comprehension. What sort of mental grasp can we have of the billionth power of a million? Yet, if the one-one proof is sound, there are just as many of these billionth powers as there are integers in the whole series, billionth powers included.

Is the one-one proof sound? A clear issue is joined, common sense *vs.* critical reason. Common sense says that the even numbers are only half of the whole series of integers; current philosophy teaches that they are equal to the sum of the odd and even, a part equal to the whole.

What is the meaning of *ad infinitum*? Both of the above series may be conceived as being continued till their last terms are both infinite, or till the number of terms in both is infinite. The first meaning is just as pertinent as the second—nay more, it is the one legitimate meaning, as we shall see in the sequel. But what follows its acceptance? At any point of equal numerical magnitude of last terms in both series, *e. g.*, 8, there are twice as many odd-and-even integers as even integers.

1, 2, 3, 4, 5, 6, 7, 8.

2, 4, 6, 8.

At the infinite point of equal last terms in both rows the same is true and common sense wins. It is only by ignoring the first meaning and assuming the second as if it were the only possible meaning of *ad infinitum*, that symbolists "prove" their case.

We can indeed, as James says, always double any term in the top row, and that *seems* to ensure the possibility of keeping the rows even. But *the double must also have its place in the upper row*, together with all lesser integers; for the top row must contain *all* integers. Thus it is continually running ahead of the lower row; its speed in the race to its infinite goal is just twice as great as that of the lower row if both series are developed in strict compliance with the conditions of the problem. No integer inserted in the bottom row can be omitted from the top row. But whenever we stop with the same number of terms in both rows—as symbolists always do in order to make a show of one-one correspondence—there will be terms

in the bottom row not found in the top row. Thus if we stop with six terms in each row, three of those in the lower row will be absent from the top row.

1, 2, 3, 4, 5, 6.
2, 4, 6, (8, 10, 12).

Of course if we thus leave out half of the odd-even series, *i. e.*, leave out 7, 8, 9, 10, 11, 12, it will be only equal to the even series, not its double. But instead of mutilating the odd-even series by leaving out a moiety of it, let us give it its just allowance of integers in full tale. When we balance 9 in the top row with 18 in the lower, we ought at once to write 18 in the top row also, and proceed to fill in 10, 11, 12, 13, 14, 15, 16, 17, in the gap between 9 and 18. The initial condition of the problem, *viz.*, the top row to contain *all* integers and the lower to contain only even integers, demands precisely that sort of genesis and development of the two series. This effectually *shuts out* the second meaning of *ad infinitum*, the sole basis, the absolute *sine qua non* of the anti-common-sense conclusion that the even integers equal the odd-and-even. Russell's naïve remark that "there are obviously just as many numbers in the row below as in the row above, because there is one below for each one above," is "obviously" true only when he, regardless of the plain conditions of the problem, has manipulated the series so that it must be true.

Here then is an actual infinite, the series of natural integers, which does not conform to the much-vaunted "new definition" of infinity. And this is by no means a solitary exception.

The new definition reverses, or attempts to reverse, the relation of finite and infinite. We used to think, and some of us still think, that the finite is the real standard of comparison, the known term of the couplet finite-infinite. It is determinate and positive in content; the infinite is the not-finite. Now the attempt is made to give the infinite a positive content and the finite is the not-infinite.⁵ But after all is said and done it is the infinite that remains vague and indeterminate, so that definite assertions about infinities are risky. And it is precisely these risky assertions and dubious assumptions that underlie the conclusions adverse to common sense.

Passing beyond the rational determinate bounds of the finite is a plunge into the vague, the mysterious, the unknown. Infinity is not a standard entity of uniform extent or value, as it seems to be regarded in setting up one-one correspondence series running *ad infinitum*. It is indeed a broad mantle, but not quite adequate to cover all sins of omission or commission on the way to it or in the shadow

⁵ "It then follows that a finite number is one that is not infinite." Spaulding, *The New Rationalism*, p. 453.

of its mystery. Some of the extravagant assertions about infinities seem to be mere mental pyrotechnics flashing out of murky depths like sky-rockets shot off in the dark. They need not be taken too seriously. Somewhat of that nature is the following: "From an infinite series any number of members can be taken, and to an infinite series any number can be added, without either increasing or diminishing it."⁶ Now as regards the truth of this flash of inspiration—or *ignis fatuus*, whichever it may be—it is on all fours with the assumption that all infinities are equal. Once admit that this infinity may be greater than that, then it is not irrational to suppose that adding the difference to the less, or taking it from the greater, will in either case make them equal. We do not assert that result as a positive fact; we have to be careful how we talk about infinities. But the mere possibility of it subverts the *dictum* above cited. An instance of one infinity growing and another shrinking is right before our eyes—the eyes of the mind—all the time. Every added hour in the flight of time is an accretion to past eternity and a shrinkage of future eternity. That infinities can neither be increased nor diminished is, consequently, just one more risky assertion about infinities. At all events it has no such status of solid verity as to form a safe inferential basis for any other "astonishing" assertion about infinities. No use trying to prove by it that eternal years and minutes are equal, or that the even integers equal the odd-and-even. One risky assertion does not prove another of the same ilk.

The habit of indulging in sweeping assertions may usually be traced either to gross ignorance or pride of intellect. Sound scholarship tends to caution and moderation. Of all fields for exploiting a dogmatic temper the vague and boundless infinity would seem to be about the least appropriate. It might be thought alluring to some minds because of the difficulty of refuting their bizarre assertions about infinities. Such a consideration would be proper enough if it were always based upon solid conviction of the truth of their statements. But there may be a suspicion that they feel safe because they are operating in an elusive realm of vagueness and mystery. One of Russell's *dicta* tends to foster such a feeling of security—not intentionally of course. In the note on page 87 of *Mysticism and Logic*, he says: "Although some infinite numbers are greater than some others, it can not be proved that of any two infinite numbers one must be the greater." Hence, possibly, the complacency with which

⁶ May Sinclair, *A Defense of Idealism*, p. 226. This is apparently not a hit from the author's own bat. Though not a direct quotation it is obviously based upon some one of the inspired *dicta* of Cantor or Russell. The inference therefrom, "that a finite series is not, in any sense, part of an infinite series," hardly needs a "mathematician" to reject it.

symbolists assume equality of infinities in order to make out a plausible showing of one-one correspondence. But that complacency is not well grounded. This inspired *dictum* that inequality of infinities "can not be proved," is just another example of risky assertions about infinities. *Reductio ad absurdum* has classical sanction as a method of proof, and we have shown above that equality of infinities involves the absurd conclusion that $1=2$. Thus its contradictory, the possible inequality of infinities, is fairly established. "All infinities are equal" is logically refuted by "Some infinities are not equal."

It is only points and instants that admit of genuine one-one correspondence between part and whole. Their amazing capacity for this trick is wholly due to the fact that points have no extension and instants no duration. A fancied analogy between them and units of measurement, spatial or temporal, such as feet and inches, minutes and years, has misled philosophers into the fallacy of illegitimate extension of the notion of one-one correspondence. They have ignored the fact that when we pass from unextended points to extended units, we are in quite another universe of discourse. The illusion is partly due to confusion of ideas in the familiar example of the points in one inch and one foot. A line a foot long is made up of two kinds of parts, extensionless points and extended units of measurement, and it is all too easy to get these mixed up in thought. An inch is a "proper part" of a foot, *i. e.*, a part like the whole in that it is an extended line. But the points in an inch are not a "proper part" of a foot; the extensionless is not like the extended. Although the inch is a "proper part" of the foot, feet are not, and can not be, in genuine one-one correspondence with inches, nor years with minutes. But some vague notion of such correspondence underlies the illegitimate extension of the one-one proof from points and instants to units of measurement, and leads to such conclusions as that the years of eternity equal the minutes of eternity. Those impish points and instants have played a sly trick on your learned and dignified philosopher.

The inaccuracy of the new definition of infinity is a serious matter, for infinities and one-one correspondence cut a great figure in current philosophical discussion. Indeed, not alone in the latest philosophical creeds but all down through the ages, the infinite, whether with or without specific definition, has been a word to conjure with.

L. E. HICKS.

THE RELATION BETWEEN PHYSIOLOGICAL PSYCHOLOGY AND BEHAVIOR PSYCHOLOGY

IN theoretical discussions about psychological systems, the historical fact that there has always been an alternation in the emphasis, now placed on the physical and now on the mental aspects of human conduct, has been used as an argument to show that behaviorism merely represents the extreme swing of the pendulum when the interest in psychology is directed toward the physiological phase. From this point it is easy to glide into the aphorism "All extremes are bad" and the conclusion that "Therefore the *true* psychology lies somewhere between" can hardly be resisted.

While interest in the physiological aspect of traditional psychology undoubtedly contributed to the origin of behaviorism yet it is primarily the development in the natural sciences that were most effective in creating those differences that now exist in fundamental assumptions, in methodology, and in subject-matter, between physiological psychology and behaviorism, and which it is the purpose of this paper to describe.

DIFFERENCES IN FUNDAMENTAL ASSUMPTIONS

With respect to the fundamental assumptions underlying the mental and social sciences two questions may be asked:

1. Can the subject-matter be reduced to a single series of elements, or is it necessary to postulate a number of orders of elements between which no attributive similarities exist? If only a single series of elements is posited, we have a monistic system; if a number of existentially independent classes of components seem necessary for a complete understanding of the phenomena being investigated, we have a dualistic or a pluralistic system. The relation to a monistic or pluralistic theory of explanation is thus one of the first questions that may be asked about a mental or social science.

2. The second question concerns itself with the type of relationship that exists between those elements (or classes of elements) that represent the ultimate analysis of the subject-matter. This relationship may be either causal or non-causal, depending on whether there is or is not a quantitative identity or invariable sequence in the stages between successive events.

The pluralistic-monistic relation is considered first.

Physiological Psychology is based on Dualism.—Physiological psychology is defined as the science which investigates the correlations that exist between the structure of the human nervous mechanism and the phenomena of consciousness.¹

¹ Ladd and Woodworth, *Elements of Physiological Psychology*, 1915, p. 3.

This definition clearly implies two existentially distinct types of facts, consciousness or mind, on the one hand, and the nervous mechanism, on the other. Consciousness is regarded as made up of those elements that are reported as present by a subject when a particular experimental method is followed. This method is usually characterized as introspection or self-observation and is relied upon for an analysis of mental complexes into elementary sensations, images and feelings. Just what experiences are to be included under these three terms, or whether these three classes are too many or too few has not yet been definitely agreed upon. There is, however, enough uniformity of opinion to warrant the use of the terms without an attempt at rigorous delimitation. Under the nervous mechanism the physiological psychologist includes those bodily structures whose function is that of sensitivity, conductivity and contractility.

As proof of the existence of the mental series the psychologist resorts to demonstration. A subject may be placed in such a position that the stimuli acting on the sense organs, and the actions that result, are reduced to a minimum. Under these conditions if the subject is asked what is going on in his mind he may report a wealth of imagery, feelings of pleasantness or unpleasantness far beyond what could reasonably be expected from a consideration of the magnitudes of the neural activity that either the subject or the experimenter can detect. Furthermore the subject will report that his imagery and feelings would have been practically the same whether he had actually reported them or not. When this experiment is repeated with other subjects the uniformity in the results approaches the limits regarded as adequate for any scientific observation and therefore the conclusion that there are mental processes in addition to neural processes seems justified. The dualistic character of physiological psychology finds its support in the assumption that the properties of the neural structures or processes are so different from the properties of the mental states or processes that they should be regarded as two different existential orders. A dualism made up of mental phenomena, on the one hand, and neural phenomena, on the other, is thus established.

Behaviorism is based on Monism.—For the behaviorist the mental series is regarded as only another neural series. He does not believe that the conclusion "there are mental states in addition to neural processes" is warranted from the experiment that is supposed to demonstrate the existence of mental states. All the experiment reveals is the fact that the sound waves that form the words of the oral stimulus "What is in your mind?" do not correspond in energy, properties, or duration to the energy, properties, or dura-

tion of the actions (introspections) that may be released. To say that the introspections reveal the existence of mental states is to infer the existence of a category of attributes (conscious elements) so dissimilar from those (sound waves and neural sensorimotor activity) upon which the inference is based, that its validity is doubtful. While in natural science it is quite common to infer the presence of some non-observed physical or chemical properties, yet such an inference does not violate the assumption that there is a mechanical equivalence between the successive stages in the process under investigation. Furthermore the traditional psychologist does not use the inference by claiming a causal relationship between the mental states and the behavior. If in the last analysis the attributes of consciousness can only be derived from the relation between stimulus and response the interpolation of a hypothetical conscious factor seems superfluous to the behaviorist.

Thus the "mere awareness of redness" of an apple for instance, instead of representing a separate conscious factor, represents merely a form of sensorimotor function in which neither the sense organs, the neural paths, nor the motor reaction (assuming that the awareness is not actually expressed as speech) can be localized or discriminated. That is to say "mere awareness" is a limiting condition arising from the fact that there are no sense organs in the nervous system, the adequate stimulus for which is the passage of a nervous excitation, or the changes in neurons that have been produced by previous function. The other limit is represented by the objective statement, "This is an apple," in which it is possible to discriminate the location of the receptors (eye) and the approximate position of the effectors (muscles of the speech mechanism or movements of the hand or arm). From this standpoint the mental and the physical, or the subjective and the objective, instead of being regarded as two separate entities, merely represent the minimum and maximum limits to which sensorimotor activity may itself be reacted to, or discriminated. It is in this sense that behaviorism is monistic.

The second question, the causal interrelationships between the elements may now be considered.

Physiological Psychology not a Causal Series.—The elements of physiological psychology may be studied in three types of relationship: (1) The relationship between the separate mental elements; (2) The relationship between the separate neural elements; (3) The reciprocal relationship between the mental and the neural elements.

1. Psychologists are fairly well agreed that the elements of the mental series do not form a causal relationship or series in the sense that there are any number of intermediate steps between the separate

elements or that the order in which they succeed each other is invariable. It is impossible to observe, for instance, the various stages by which one image is displaced by another, or to regard the succession as in any way maintaining a quantitative identity analogous to those physical energy transformations from which the concept of causality has been developed. The actual investigation of the mental series, as such, is restricted to that of cataloguing the conscious states or processes of those persons that have been specially trained in introspection. Mental states merely occur, and this is all that can be maintained.

2. The sciences of neurology and physiology supply the conceptions underlying the relationship between the neural elements. Both the physiological psychologist and the behaviorist are agreed that these relationships conform to the natural science concept of causation and it will not be necessary to discuss them further.

3. The third form of relationship that the physiological psychologist investigates is that existing between conscious processes and nervous function. The interest in the physiological aspect of psychology is merely an attempt to find some function (in the mathematical sense) of the mutually independent mental elements, that conforms to the natural-science concept of causation. The neural activity in the sensorimotor arch is regarded as such a function. This functional relationship between the mental and the neural elements is expressed by the statement: "Every psychosis has its neurosis." If the dualistic conception of mind and body is accepted there is much experimental evidence in verification of this hypothesis. However, it is not clearly enough recognized that when the concept of a psychosis, regarded as distinct from a neurosis, is introduced, causation in the biological sense vanishes. While few critical thinkers have ever maintained that the neurosis *produced* the psychosis or that the psychosis *produced* the neurosis, yet this is just the interpretation that is given by popular psychology and implicitly at least the conception is found in the writings of many professional psychologists.

If, on the other hand, the relationship between the mental and the physical is regarded as correlational only, the concept of causality must again be relinquished. Perhaps the clearest statement of the relation between the mental and the physical that indicates the standpoint of the physiological psychologists is that expressed by Warren,² who regards the mind as one aspect and neural function as another aspect of the same series.

² Warren, H. C., "The Mental and the Physical," *Psychol. Rev.*, 1914, XXI., 79-100.

Of the two forms of relationship that are investigated by physiological psychology neither one represents a causal relationship. The links of the mental series are not causally related; the mental-neural relation is correlational, not causal.

Behaviorism is a Causal Series.—To avoid the difficulties introduced by the mental-physical concept, the behaviorist avails himself of the generally accepted fact that whatever may be the properties of the mental series these properties can only be manifested or expressed by neural activity of some sort. For the behaviorist all activity is sensorimotor activity, whether this is of the simplest reflex type or the most complex actions that express man's intellect or character. Consequently, for the behaviorist the question as to the relation between mental and neural processes becomes merely the question as to the relation between two different forms of neural activity. These interrelations however form a causal series in that any number of transition stages may be observed and the properties of those neural processes from which the psychologist infers mental states differ only in degree from those sensorimotor conditions that make up habitual activity. Thus to have an image of an orange means merely that in addition to the sensorimotor activity appropriate to the occasion (eating breakfast for instance) there is also activity in those neural structures that functioned at a previous time when the subject reacted, to say the sight of an orange, by actually eating it. The same principles of sensorimotor function that explain the activity of eating, also explain the activity of imaging.

The postulation of a special mental process as distinct from the physical, the behaviorist regards largely as the introduction of a "thing in itself" concept. If neural activity alone can become available for science, why insist that there is "something else" which can never be directly observed or investigated? This of course does not mean that the behaviorist denies that a subject may introspect. He merely maintains that introspection is one of the many forms of sensorimotor activity by which the subject reacts to his environment.

For the behaviorist then there is only a single series, the elements of the nervous mechanism and the links between successive stages form a causal relationship.

DIFFERENCES IN METHOD

In the natural sciences it is of very little consequence whether the investigator adopts a monistic or dualistic interpretation of the mind-body problem. In the study of mental and social phenomena, however, the method of investigation and the results that are secured

depend largely upon whether the investigator supports a monistic or dualistic hypothesis. Such a problem for instance as "The Analysis of the Intellect" may not mean at all the same thing for the dualist that it does for the monist.

The Method of Physiological Psychology.—Since the physiological psychologist is primarily interested in the structure of consciousness, that phase of a problem will be emphasized that can be investigated by the method of introspection. To analyze intellect, for instance, the psychologist will ask a subject to reveal through introspection what mental states are present while he is performing some intellectual process, such as solving arithmetical problems, playing chess, *etc.* The stimulus conditions under which these introspections are made are carefully controlled and the result of the experiment is a classification of the introspective reports in such a way as to reveal certain patterns of consciousness. Such an investigation can be conducted with a degree of scientific rigor and ingenuity that may even exceed that shown in the investigations of many natural science problems, and the result secured may be regarded as just as complete a record of mental structure or mental function as for instance a systematic description of the flora of a country. To extend the conclusions derived from the individual introspective reports the experimenter repeats the experiment as often as may seem necessary. The explanatory phase includes an investigation of the neural structures and processes whose functioning is correlated with the introspective reports. The validity and generality of the conclusions that are reached depend on the skill and insight of the investigator as in any experiment in the natural sciences. The end result of an experiment in physiological psychology is a report of what patterns of consciousness may be expected to occur under given conditions.

The Method of Behaviorism.—The behaviorist has no special method in the sense that introspection may be regarded as a special method in structural psychology. In the problem "The Analysis of the Intellect" the approach is from an entirely different angle. Intellect is regarded as a form of sensorimotor activity rather than a form of consciousness and the first step in the analysis is to determine what type of activity is to be characterized as intellectual. The next step is to develop some technique by which the presence or absence of this type of activity can be detected, and finally its distribution in the whole or a selected part of the population is determined. This represents the social aspect of the problem. The behaviorist regards intellect or reason, judgment, *etc.*, as a form of behavior, not as a pattern of consciousness. From the individual

side the problem becomes that of tracing the development of those actions that have been defined as intelligent, from the earliest reflex activity of the infant to the final reactions of the adult. To assume that these reactions are accompanied by consciousness is no more helpful in an understanding of behavior than it is to assume that if we knew whether the atoms in a chemical reaction actually experience affinity, valence, warmth, cold, *etc.*, we could explain chemical reactions.

The behaviorist raises the question as to whether a subject who is introspecting is actually describing mental states. Instead of maintaining that introspection reveals the character of some mental process, it is simpler to say that it reveals only the fact that the experimental stimulus, in addition to producing the experimental response (pressing a key for instance) also produces an oral response (the introspective report). All that is actually observed is the fact that the energy of the response is not a simple function of the energy and character of the stimulus. The behaviorist regards introspection as the behavior of a very special and limited class of individuals. Human laws, institutions, social customs are developed by non-introspecting individuals, and it is the behavior of this type of individual that engages the primary interest of the behaviorist. While he may of course investigate the introspective reaction, he regards it as merely one way in which a psychologist may react to a special situation. The method of the behaviorist thus reduces itself to a statistical, genetic and mechanical analysis of those movements that form the basis of human interaction.

DIFFERENCES IN SUBJECT-MATTER

The subject-matter of both physiological psychology and behaviorism in the final analysis, is human action and conduct. It is this fact perhaps that is largely responsible for identifying behaviorism with the neural aspect of traditional psychology. However, when the differences in methodology are taken into consideration the similarity in subject-matter is of no greater significance than the fact that the whole universe can be regarded as the subject-matter of mechanics or physics.

Subject-Matter of Physiological Psychology.—While selecting the form of behavior that is to be investigated, the physiological psychologist works toward establishing what mental states or processes are correlated with new or unanalyzed forms of action. The sensations, images, feelings, and emotions that accompany the manifold activities making up the life of the individual are regarded as presenting a field of investigation comparable in dignity and in the

demands upon ingenuity with that required in natural-science investigations. When in addition an attempt is made to determine what neural conditions accompany mental processes, the physiological psychologist maintains that he meets the descriptive and explanatory requirements that are regarded as constituting a science in the modern conception of the term. Mind and consciousness as revealed by introspection and as correlated with neural function represent thus the subject-matter of physiological psychology.

Subject-Matter of Behaviorism.—The development of behaviorism to some extent represents a reaction against the apparently meager achievement of physiological psychology. While certain neurological experiments may be interpreted as establishing the fact that certain mental states seem to be associated with either this or that part of the nervous system, yet as a matter of fact not even the simplest mental state or function can as yet be referred to a precise neural correlate. Singularly enough this fact is usually urged to show that behaviorism is impracticable and one-sided. While the behaviorist is of course interested in neural function, and even to a greater extent perhaps than the physiological psychologist, yet he is not merely a neurologist. His subject-matter is human behavior; those actions that are grouped under the general class names of intellect and character. In the study of these reactions a knowledge of the internal structure of the nervous mechanism is no more necessary than a knowledge of the internal structure of a molecule is necessary for a chemical analysis.

It is not clearly enough recognized that most of the experiments that are included under applied psychology, educational psychology, mental and social measurements, and even the classic memory experiment of Ebbinghaus are in reality investigations of human behavior. In these investigations no attempt is made to determine what mental or neural conditions are involved. An intelligence test, an educational test, a class examination, are merely different ways of measuring human action. Their social or scientific value in no way depends upon what assumption is made as to the presence or absence of mental or neural factors. The behaviorist's subject-matter includes a study of the stimuli and situations which act upon man, and a study of the reactions which result from the operation of these stimuli upon a nervous mechanism having certain acquired and inherited properties. What is acquired and what is inherited is not revealed by an anatomical or physiological analysis of neural function. Only the investigation of human action and conduct in its genetic developments can reveal this. The behaviorists maintain that aside from difference in anatomical structure the only differ-

ences between individuals is in the movements that they make and that these movements are to be studied in precisely the same way as any other movements, animate or inanimate. Human behavior is merely an expression of the fact that the chemical and physical conditions inside and outside the body are not in equilibrium.

The investigation of the internal neural conditions form part of the behaviorist's programme, of course, but the inability to trace the ramification of any given nervous excitation through the nervous system is no more a restriction on the study of effective stimuli and reactions in the educational, industrial or social phases of life, than is the physicist's inability to determine just what is going on in the electrolyte of a battery while a current is passing, a limitation that makes research in electricity impossible. Human behavior as a function of the environment and the nervous mechanism, represents thus the subject-matter of the behaviorist.

SUMMARY

When compared with physiological psychology, behaviorism presents differences in fundamental assumptions, methodology, and subject-matter which do not justify the implication that behaviorism is merely an emphasis upon the neural side of physiological psychology.

The fundamental assumptions of physiological psychology are based upon a dualistic system, made up of mind on the one hand and neural function on the other, both of which are *correlated* with each other, but not causally related. The fundamental assumptions underlying behaviorism are monistic. The element is the reaction regarded as sensorimotor function of which the various stages are causally related.

The method of physiological psychology is that of introspection, supplemented by an analysis of the neural factors correlated with given mental patterns. The method of behaviorism is that of a statistical, genetic, and mechanical analysis of those movements that form the basis of human interaction.

The subject-matter of physiological psychology is mind or consciousness as revealed by introspection and as correlated with neural function. The subject-matter of behaviorism is human action and conduct regarded solely as a mechanical function of the environment and the reaction system.

A. P. WEISS.

SPAULDING'S RELATIONS AND SUBSISTENT ENTITIES

SPAULDING'S *The New Rationalism* differs significantly from other neo-realistic books known to the writer by its detailed and critical discussions of non-realistic philosophical systems.¹ In truth, Professor Spaulding argues negatively for his own pluralistic and realistic conception of the universe by the attempted refutation of all other metaphysical conceptions. One and all, he holds, they presuppose a "true state of affairs" which is independent of any or all minds that know it—a state of affairs which is, in other words, only externally related to any knower of it. But such a state of affairs, Spaulding points out, is precisely the world as the pluralistic realist conceives it.

The present writer believes that Spaulding's argument for neo-realism—this argument by elimination of all non-realistic systems—is unsuccessful because of the incompleteness of his elimination—more specifically because of his failure to refute, or even to understand, what he calls "objective" (that is, numerically monistic) idealism which he treats as the doctrine of an extra-entity, mediating the relations of other entities outside itself, whereas it really is the doctrine of a complex, including entity which relates its own members. But this brief paper is not written in order to elaborate this fundamental criticism;² it has two less ambitious purposes (only loosely connected with each other): it seeks, in the first place to protest against Spaulding's identification of what he calls "the new logic" with metaphysical realism and, in the second place, it undertakes to disclose certain inherent inconsistencies and idealistic implications in Spaulding's doctrine of subsistent entities.

I. The new logic, by which Spaulding means the theory of relations, is, he holds (in agreement with others of his school) a necessarily realistic doctrine. For idealism, he contends, can admit the occurrence of those traditional relations only—substance, cause

¹ The seriously critical portions of the book, no less than its constructive sections, well repay the careful attention of students of philosophy. It is greatly to be wished that Professor Spaulding would either purge the book of its unnecessary repetitions or else indicate, in the Preface of a second edition, the sections and chapters which might be omitted, without detriment to the basal argument of the book.

² For exposition and criticism of Spaulding's main argument, cf. the writer's "The New Rationalism and Objective Idealism" in a forthcoming number of the *Philosophical Review*.

Besides argument the idealist finds in Spaulding's pages many unargued assumptions—in particular the reiterated assumption that a "true state of affairs" is *ipso facto* non-mental (pp. 86', 231², 369²) and the unmediated assertion that "knowledge presupposes something that . . . would be a fact were it not known" (p. 384²).

and inclusion—which are, to say the least, of subordinate significance; and idealism is consequently debarred from commerce with the truly important relations of series and order.³

Now, so far as the relation of self to objects is alone at stake, this account of the idealistic doctrine is, in the main, correct. The idealist conceives the self as inherently a relater of objects and not a merely related object; he therefore denies the externality of the relation known as consciousness, or knowledge. Accordingly the ultimate relations of idealistic philosophy are, in Spaulding's terms, "underlying" (pp. 38, 180 ff., 311 ff.) or "modifying" (pp. 37, 182 ff., 236 ff.)—relations of "substance" and of activity, or cause. But this admission falls short of a justification of Spaulding's position. There are in truth three important objections to his identification of the new logic with the new realism.

(i) In the first place, his procedure wholly ignores the position of the spiritualistic (or personalistic) dualist, who holds, with the idealist, that the knowledge relation neither exists nor subsists in independence of selves, but who may well agree with the realist that all other relations, save those of self to self and of self to non-mental object, are completely external to their terms.

(ii) The realist, in the second place, even if he is right in holding that external relations have no place in an idealistic metaphysic, is not thereby justified in excluding the idealist, in his capacity not of metaphysician but of logician, from the study of the relations of series and of order. For, as logician, the idealist might for methodological purpose adopt at will an impersonal attitude; he might regard all save personal objects as *if* related externally to each other. So regarding them, he would be free to deal precisely as the realist deals with the external and "functional" relations—for example, with the relations of series, symmetrical, asymmetrical or non-symmetrical; transitive, intransitive or non-transitive; finite and infinite; discrete and continuous. In a word, the relations of the new logic might be handled according to the strictest rules of the neo-logicians, as well by one who regarded classes and series as counters in a great game as by one who treated them as part of the coin of the realm of metaphysical reality.

(iii) The preceding paragraph has virtually argued that the idealist, in spite of his metaphysic, has a non-philosophical claim on the new logic. But in truth the idealist need not abjure or ignore his metaphysics when he turns to "logic." To be sure, he will inevitably, in his logical study, abstract from—be relatively inattentive to—the relation of objects to self; he will concern himself

³ *The New Rationalism*, pp. 29 ff., 41, 243, 326. (Page references, unless otherwise indicated, are to this book.)

primarily with the relations of objects to each other. But he need not, therefore, regard these so-called external relations as metaphysically unreal; rather he may conceive the impersonal, external relations as implying the personal. So, for example, after the fashion of Stern, the idealist may hold that the alleged external relation of two terms with each other, presupposes that the two terms are still more ultimately, and directly, related to a self.⁴ It is entirely irrelevant to the present purpose whether or not the idealist can successfully defend this view, whether, for example, he rightly holds that "two things external to each other can be related only in so far as both are included in a third as their common ground."⁵ The point to be stressed is simply this: that the idealist, like the dualist, has a place in his system not only for the relation of self to its objects but for the "external" or "functional" relations of non-mental objects to each other. Obviously, therefore, the study of relations since it can be pursued as well by idealist and by dualist as by neo-realist, should not be harnessed up to one only of these metaphysical systems. To refuse a student who is not a neo-realist the right to concern himself with relations of series and order, is as if one should debar a man from singing Gregorian chants if he does not belong to the Greek church or from breeding guinea pigs if he is not a neo-Darwinian.

II. From this protest against the treatment of the new logic as an exclusively neo-realistic doctrine, I turn to my second topic: the discussion of the difficulties inherent in the theory of subsistent entities. This, however, demands a preliminary statement of Spaulding's doctrine as a whole. He conceives the universe as consisting of entities of two sorts: *existent* and *subsistent*. Of the existent entities, some are physical and some are psychical (p. 494). Physical existents include not only "things, forces, energies" (p. 491³), living beings (p. 445²) and qualities, such as solidity and elasticity, but also "relations such as cause and effect" (p. 491³). All these would exist even if all the psychical existents were annihilated (pp. 384³, 444 *et al.*). *Subsistent* entities belong to two main classes (p. 494): (a) "implied subsistents, discovered by reason;" (b)

⁴ L. W. Stern, *Person und Sache*, a book most profitably read as companion-piece and offset to *The New Rationalism*. Cf. especially, pp. 39-40; p. 167²; the concluding section, pp. 345 ff., on "the deduction of the mechanical-impersonal relations from teleological-personal principles"; and the passage, pp. 255 ff., on the relation between causal succession and personal activity. (It should be added that Stern is more nearly a vitalist than an idealist and that his "person," the unique and complex totality of parts which it relates to itself and to each other, is conceived by him as psychophysically "neutral" and not as necessarily conscious.)

⁵ Stern, *op. cit.*, p. 346³.

"experienced but not implied subsistents; some spatial and temporal and some not." These last are once more subdivided into three subclasses, (1) "'false' hypothetical entities, *e. g.*, phlogiston;" (2) "imagined entities such as centaurs;" and (3) "illusory and hallucinatory objects." And the "implied subsistents" of class (*a*) are likewise subdivided into (1) relations, classes, numbers, space, time; logical principles; series, infinity, and continuity; (2) "simples and complexes; terms and qualities;" (3) "ideal entities, contrary to existent fact." Like the physical existent, all these subsistent entities are entirely independent of the psychical existents, the selves or minds, and would continue though all minds, or knowers, ceased to exist (p. 492²).

Nobody can examine, with any degree of care, this classified list of the entities of the universe without being struck by the fundamental difficulty of the doctrine; its total failure to distinguish unambiguously between existent and subsistent entities. To be sure, Spaulding attempts to differentiate them. Subsistents, he once says, "lack . . . temporal and spatial localization"—whereas physical existents are both spatially and temporally localized and psychical existents "occur at certain specific times" (p. 492²). But in what he calls his "complete classification," quoted in condensed form in the preceding paragraph, he abandons this distinction by the explicit statement that not merely some of the experienced subsistents but some also of the "ideal" implied subsistents, are spatial and temporal. But if the *perpetuum mobile*, the satyr, and the contrast color (for example), though as truly spatial and temporal as the physically existent aeroplane and goat and lamp-light, are none the less subsistent, evidently space and time quality can not serve to mark off the existent from the subsistent entities. And, in the end, Spaulding admits the dogmatic and unargued character of the distinction since he frankly states that, in differentiating the existent from the subsistent, "one must rely wholly upon the verdict of empirical methods and common sense in which innumerable things, qualities, events, and relations are accepted as existing" (p. 490³) and are contrasted with another group of entities which are "found to lack that full quota of qualities . . . which psychology and physics recognize as essential to objects that exist" (p. 492²). But this bare assertion of an empirical distinction between physical things and conscious minds on the one hand, and, on the other, a heterogeneous collection of relations, series, ideals, images, and illusions is not a philosophy, and least of all a new rationalism. At its face value it is merely the familiar spectacle of realism at bay, taking refuge in the rough distinctions of the "plain man." But it has not even the advantage of this naïvely

realistic position. For surely no scheme of classification can be much further from the "verdict of common sense" than one which groups together, even under its most general heading, so heterogeneous a manifold as logical principles, ideal beauty, space, phlogiston, and "the snakes of tremens" (p. 494), and which brings together in one of its sub-classes such sharply contrasted entities as ideal justice and a *perpetuum mobile* (p. 494).

The preceding paragraphs indicate the basal defect of Spaulding's doctrine of subsistent entities judged by its own standards. This which follows will suggest the idealistic implications of the doctrine. One of these is found at a point at which Spaulding certainly draws a real distinction between his two main classes of subsistents. The one class, that to which belong the relations, series, classes and ideals—is, he says, "implied," that is "discovered by reason." The other class—that which includes the false hypothetical entities, the illusions and the images—is "experienced." Here we have clearly an observed distinction—but in terms of consciousness; the contrast between the inferred and the imagined (as perceived). A further study of the tabular view of the "entities of the universe" (p. 494) discloses a more significant instance of this reference to consciousness. In the only passage in which Spaulding instead of enumerating existents and subsistents describes them, this description (which one may note, *en passant*, once more fails utterly to distinguish between the two) is again in terms of consciousness. Existents are said to be "perceived and inferred, remembered and imagined." And "non-existent subsistents also" are "perceived and inferred, remembered and imagined." These terms, it must be reiterated, are not casually used but constitute the basic descriptions alike of existents and of subsistents. Of course, the realist understands always, after "perceived" or "inferred," the word object; and always assumes that the object is or may be non-mental. But apparently he altogether overlooks the significance of the fact that his only *descriptions* of the lavishly enumerated existent and subsistent entities are in terms of the mental.

The consideration of the failure of the subsistent entities to justify their position in the metaphysical scheme of reality sets the reader to speculating on the psychological genesis of the doctrine. It is, in truth, not difficult to guess how neo-realists have been led to invent, or to adopt, the conception of entities at once non-physical and non-psychical. They have recognized the inadequacy of the old materialisms and dualisms—the too exclusive concern with sensuous objects and the crude disregard of relations, and "values." And at the same time they have rejected the idealistic account of these non-physical entities. Thus this world of the non-mental yet non-

physical entities has been forced upon them; and some of them have sought to enhance its actuality by appropriating for its use the term "subsistent." Since, however, as has just been pointed out, Spaulding never succeeds in defining the world of non-mental yet non-physical realities (unless in terms of consciousness) he can hardly hope by the repeated assertion of its non-mental character effectively to defend it against the assaults of the idealists, strengthened as they are, at just this point, by the adherence of those who, while they shy at pure idealism, none the less insist on the mental or ideal nature of all that does not belong to the world of the physical sciences.

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REVIEWS AND ABSTRACTS OF LITERATURE

Troubles Mentaux et Troubles Nerveux de Guerre. GEORGES DUMAS. Paris: Alcan. 1919. Pp. 225.

This volume claims more general interest than naturally attaches to a treatise on military psychiatry. It consists principally of articles contributed to the *Revue de Paris*; and has the quality of its origin, of precision without pedantry. It is concerned most with the neuroses, not the psychoses of war, the latter being briefly dismissed as not essentially characterized thereby. A following chapter takes up confusional symptom-complexes associated with physical or mental shock. Some interpretative stress is here laid on toxic factors. Interesting types of amnesia, and other accidents in motor and sensory fields, are exemplified with profuse clinical observation. Successive chapters are devoted to the organic and emotional features of war neuroses, as well as those in which suggestion by self or others is the chief factor. Organic factors are thought to be especially prominent in auditory disorders; a limited group of symptoms also is referred to "emotion which has become unconscious." Practical measures in suggestive therapeutics are described; mutism yields the most readily thereto. The rôle of electricity in these procedures appears to have been considerable. Symptoms responding to suggestive treatment are facilitated through increased suggestibility the direct or indirect result of shock. Attention is invited to the generally passive character of autosuggestive symptoms arising after shock, *e. g.*, paralyzes as opposed to contractures. A following brief account of administrative experiences in military psychiatry forms the most interesting, even entertaining portion of the volume. Anaphylactic effects of shock are observed; there appears only the normal heredity for mental disease; on the other hand, previous emo-

tional instability is frequent. A final chapter deals with problems of simulation. In conclusion a succession of different types of symptoms of shock conditions is put forward as (1) physical and emotional shock, with their organic and mental sequelæ; (2) confusion, with its intellectual and affective features; (3) autosuggestion; (4) prolongation of symptoms, which grades into (5) simulation.

The volume contains searching analyses of organic and mental factors, that do not lend themselves to brief review. A striking feature is the slight if any trace of psychoanalytic influence. British military psychiatry seems to have been considerably affected thereby.¹ There is copious and dispassionate reference to cognate German literature of the war period.

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Neuroses et Psychoses de Guerre chez les Austro-Allemands. G. DUMAS, and H. AIMÉ. Paris: Alcan. 1919. Pp. 242.

This volume is more technical than the preceding, and bears more evidence of other than scientific issues between the groups at war. It is based on three reports by Birnbaum published in 1915 and 1916 in the *Zeitschrift für die gesamte Neurologie und Psychiatrie*. One meets not without regret in this connection such names as Binswanger, Jolly, Alzheimer, Weygandt, Westphal, Gaupp, and others quoted. Certain topics only are selected for discussion in the review by Dumas and Aimé; these concern chiefly the conceptions of *Schreckneurose*, traumatic neurosis and hysteria. Surprise is expressed at insufficient differentiation between hysteria and confusional states. Effects of the war's outbreak on the civil population are noted. Stransky discusses pathological indifference to danger. No special national immunity to war neuroses appears; it is on the side with the heaviest artillery. A few writers, notably Nonne, make special claims for the value of hypnosis. A discussion arising in German psychiatric circles out of Oppenheim's views on traumatic neurosis is dealt with in some detail. There is a brief note on war neurotic symptoms among animals, which seem to be clearly observed. The emphasis on toxic etiology noted in the other work is expressed also in this volume. German literature appears more inclined to psychogenic viewpoints, but these have had less influence even here than on corresponding thought in England and America, or been less appreciated by the French reviewers. Flight into the psychosis and unconscious determination are very casual conceptions for the text. There are many removes between the original German

¹ Cf. Rivers, W. H. R., "Psychiatry and the War," *Science*, N. S., 49, 367-369.

articles and American readers, and the book appeals essentially to the specialist as a résumé of German progress in these directions during the first half of the war.

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MCLEAN HOSPITAL.

JOURNALS AND NEW BOOKS

PSYCHOLOGICAL REVIEW. July, 1919. *The Evolution of Behavior* (pp. 247-276): H. J. BAWDEN.—Natural selection is at present the only accredited theory of organic evolution. The beginnings of behavior, plant and animal life, early life on the seafloor, invertebrate and vertebrate, etc., are traced. *The Principles of Serial and Complete Response as Applied to Learning* (pp. 277-286): RUTLEDGE T. WILTBANK.—The writer does not question the statements of Carr and Peterson, but he tries to show that in the case of the maze, inasmuch as the successful movements must be made through the entire length of the runway while the erroneous movements need not be, and there is a constant tendency making for the shortening of the erroneous movements, the arcs involved in the successful movements must undergo greater innervation than any of the others. This, as already noted, seems to justify placing the principle of the completeness of the single successful movement on the same footing with frequency and recency as explanatory principles in maze-learning. It seems warrantable to assume that this principle holds in all learning by the trial and error method. *The Influence of Extraneous Controls in the Learning Process* (pp. 287-293): HARVEY CARR and HELEN KOCH.—This paper attempts a preliminary comparison of the rate of learning when all possibility of error has been eliminated by means of some extraneous control, as opposed to the usual procedure of learning by the trial and error process. No general conclusions are yet made, but investigation is now going on and a limited amount of control introduced at a certain stage of the learning is extremely effective in the mastery of the maze problem. *Multiple Choice Experiment Applied to School Children* (pp. 294-299): ELEANOR ROWLAND WEMBRIDGE and PRISCILLA GABEL.—Tests were designed as an application to human beings of the multiple choice methods of testing, suggested by experiments which Yerkes once tried on pigs, crows and monkeys. *Practise Effects in a Target Test—A Comparative Study of Groups Varying in Intelligence* (pp. 300-316): BUFORD JOHNSON.—An investigation was made for the study of the comparative practise ef-

fects in a motor test given to groups varying in intelligence as measured by standardized scales. The learning curves for the low and high groups are characterized by marked fluctuations and valleys rather than plateaus. These valleys occur at different stages of practise, indicating a differentiation of incentives for groups of varying levels of intelligence. The median group has the usual form of learning. While the data indicate the effectiveness of superior intelligence in the acquisition of skill in the target test, there is evidence of great capacity to improve in the upper grade mental defective. *Plotting Equations of Three Variables in Mental Measurements* (pp. 317-326): HERBERT A. TOOPS.—The possibility of using a series of curves to represent on ordinary plotting paper the variations of a dependent third variable of a mathematical equation is not well known. The ease with which some of the simpler equations used by a clinical psychologist can be expressed in charts would seem to recommend these charts for their use.

BRITISH JOURNAL OF PSYCHOLOGY. May, 1919. *The Psychological Interpretation of Sense Data* (pp. 261-280): JOHN LAIRD.—Psychologists must set themselves to explain precisely what is meant by sense presentations or sense data. It is not enough to point to examples. *The Unconscious* (pp. 281-298): CARVETH READ.—There is great difficulty in defining the unconscious. Repression and Unconsciousness as determined by organic structure, the concept of the unconscious, etc., are discussed. *The Acquisition of Motor Habits* (pp. 299-320): VICTORIA HAZLITT.—A study of the acquisition of motor habits of rats in a maze is given. The results show that the rat is not a machine. *The Proof or Disproof of the Existence of General Ability* (pp. 321-344): GODFREY H. THOMSON.—The object of the paper is to investigate the significance of the coefficient of partial correlation, and to examine into the validity of some reasoning based on its use. There have been made sweeping deductions as to the presence of general ability in many forms of activity, based upon methods depending largely, if not entirely, on a similar misinterpretation of the methods of partial correlation. *The Hierarchy of Abilities* (pp. 337-344): GODFREY H. THOMSON.—The object of this paper is to investigate some of the ways in which hierarchical order can be produced among mental tests other than by the action of a hypothetical general ability. *General Ability, Cleverness, and Purpose* (pp. 345-366): J. C. MAXWELL GARNETT.—The object of this article is to show that, in addition to the "single general factor" which along with specific factors tends wholly to account for the correlations between any set of sufficiently diverse

mental tests, there are other independent factors which also enter to a sufficient extent into tests of certain groups of similar qualities. *Joint Note on "The Hierarchy of Abilities"* (pp. 367-368): J. C. MAXWELL GARNETT and GODFREY H. THOMSON.—The points on which the writers agree are given. *Publications received.*

REVUE DE MÉTAPHYSIQUE ET DE MORALE. March-April, 1919. *La "Pédagogie" de Rousseau* (pp. 153-180): É. DURKHEIM.—An abstract of the chief points of Rousseau's theory with supporting quotations from texts. *Émile Durkheim* (pp. 181-198): G. DAVY.—A biographical sketch. *La Dégradation de L'Énergie et le Principe de Carnot* (pp. 199-210): F. MICHAUD.—A criticism of M. Selme's paper on Entrophy. *Études critiques. La Métaphysique de Josiah Royce (Suite et fin)* (pp. 211-246): G. MARCEL. *Enseignement. La Technique de L'Éducation aux Universités et l'Enseignement national*: J. DELVOLVÉ. *Questions Pratiques. Réflexions sur le Droit de la Guerre*: R. Hubert.

Bridges, James Winfred. *An Outline of Abnormal Psychology.* Columbus, Ohio: R. G. Adams & Co. 1919. Pp. 126.

Taylor, Henry Osborn. *Prophets, Poets, and Philosophers of the Ancient World.* New York: The Macmillan Co. 1919. Pp. 294. \$1.50.

NOTES AND NEWS

PROFESSOR ALIOTTA, of the University of Padua, is seeking to establish an International Philosophical Review which shall contain articles in Italian, English, French, German and Spanish, with the translation of a certain number of them into French. Professor Aliotta invites the collaboration of American students of philosophy in his very interesting enterprise.

PROFESSOR MORRIS R. COHEN, of the College of the City of New York, has been given leave of absence for the current academic year. Professor Cohen expects to devote his time to studying the philosophy of law.

DR. DANIEL STARCH, professor of psychology at the University of Wisconsin, is on leave of absence for the first half of the present year, and is giving a course of lectures at Harvard.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

THE ASYMMETRY OF REALITY

MY thesis is that all the things we know, be they minds, bodies, societies, or groups of these, are asymmetrically constituted. They are composed of units which are unequal in function and value, and the units themselves are made up of further units unequal in function and value, and so on indefinitely. It is not the unit-composition, the atomism, that is here the important feature; it may be that in the world of mind atomism is only a figure of speech and that even the physical world is ultimately a continuum. It is the asymmetry of structure that is the significant trait; for, as I hope to show, it is by virtue of that trait that things move, grow, or produce—in short, play their parts in the drama of reality.

We are to proceed inductively, tracing the alleged structure in one department of the world after another. And let us begin with the human psychophysical organism.

In normal waking life, probably all, or nearly all, of the central nervous system is continually the seat of disturbance. The nerve-currents never wholly die out. Yet only a little of this activity corresponds to or makes up the conscious state. As one gazes over the landscape, and memories flit through the mind, the currents in the visual centers, certain associative fibers, and one or two other sensory tracts, alone of all the brain-processes are above the level of consciousness. Out of the legion of nervous activities these few emerge from the depths of the unconscious, as the least part of an island is above the ocean's surface. And having emerged into the light of consciousness, they and their consequences dominate the behavior of the organism, as man's mind controls his bodily movements. It is only in dreams, when the organism is no longer an efficient unit in the world, that conscious control practically ceases. Indeed we might from one point of view define consciousness as the selection, due to some unknown agency, of certain nerve-processes from the great mass of bodily phenomena, and the conferring upon them of more or less power to guide the rest.

Passing now to the field of consciousness itself, we find an analogous situation. In a momentary cross-section, there is a center, the

focus of attention, and a margin usually larger and less clear. As a rule the center is more effective than the margin; it is stronger to call up associated ideas and to guide conduct. The extreme case is perhaps the attempt to solve a problem, where the data or the desired result are the center, and determine by association the appearance of many tentative solutions, and the selection of promising ones from the remainder. In idle reverie, on the other hand, when thought is serving no definite purpose, this domination by the center is at a minimum. It is when attention is active and thought is an effective element in organized behavior, that this asymmetrical structure is prominent.

With our consciousness of the past, or memory, selectiveness is patent. Of the multitude of our past experiences, few leave sufficient trace to be subject to recall; of those that do so, again, few are those that are actually recalled. Vastly more events disappear from primary memory than ever appear in secondary memory. What we do recall of the past usurps the place and meaning of the rest, and thereby represents the past; we judge the latter by the infrequent remembered instances which represent the forgotten crowd of experiences. It is like conceptual thought, in which we represent a general idea by some particular symbol or image whose content may be quite irrelevant. When I think of gravitation, I picture an apple-tree; that symbol is capable of calling up the long train of ideas which would elucidate the full meaning and generality of the term; but consciousness, which economizes, retains but the one idea of the apple-tree, and this replaces the whole series. In the mind as in the political arena, a class is represented by one; and this one is able to call up the others. So far, indeed, as it has this power of controlling their appearance, is it serviceable for conceptual thought. And nothing is more obvious than that this power of selection and exclusive emphasis is necessary to the efficiency of consciousness. Were all the events of the past, and all the meaning of every concept we employ, equally potent over attention, we should be unable to act.

Nor is the state of affairs essentially different as regards emotion and will. A deliberate act of will, a conscious choice, is a selection of one out of several possibilities. If I debate with myself whether to take the nine or the ten o'clock train, these are, as the student of behavior would say, two tendencies competing in my organism. One of them triumphs; I decide upon the later train. This decision, as Professor Royce was fond of pointing out, cuts off a whole class of possibilities; it also creates a whole class. By waiting an hour longer, I am able to do many things otherwise left undone. Nobody knows, perhaps, just how a voluntary decision is accom-

plished; but certainly it is a selection of one from a class of possibilities and the endowing of that one with power to suppress some, to aid others, and to create still others entirely novel. Or consider the case of a mature will in a strongly developed personality. There is here not only coordination of motives, but control by one. A single ruling purpose is the guiding factor of many deeds. A powerful character is never symmetrical; he is predominantly artist, scientist, statesman, or other specialty. Always some ruling type of conduct is found, to which the remaining acts are subordinated. Not coherence so much as government of many impulses by one, is the essence of personality; and the greater the man, the clearer is this one-sidedness, for character and uniqueness go together.

Emotion also is centered: we love some one, we hate some one, we fear some object. Unless it is thus individuated, the emotion is not effective. However universal be sympathy, it must be concentrated if it is valuable. Jesus, the most universally compassionate figure of history had his picked disciples, and of these he had his favorites. Had he not done so, it would have been impossible to spread abroad his doctrine. The preaching of a gospel, like education, is pyramidal. It proceeds from the pinnacle to the base in ever widening areas of influence; the great mass of mankind is reached only gradually, and this asymmetrical procedure has ever been found necessary to a lasting effect.

The structure of mind, in short, is through and through uneven; at the extreme of highest value, personality displays its one-sided equilibrium, with its subordination of many traits to one dominating purpose, and at the other extreme, the momentary cross-section shows the same character, while the main functions, will, emotion, conception, memory, reveal the identical composition. And in every case the efficacy, be it of a person, or of a single mental process, is found to depend upon the asymmetrical structure.

There are two ways of viewing human society: in cross-section and in history. At a given period, the human race (itself dominating other races of living things) is divided into many nations; of these some few are the prominent ones, sometimes even the exploiters. In each nation, of course, we find the rulers and the far more numerous ruled. Each nation becomes powerful only by such organization; thus only does it possess equilibrium and become a stabilized society which can develop a literature, an educated class, a characteristic tone which it contributes to the world-culture. Without the equilibrium, its people are too much occupied in the struggle for existence to make up an effective unit of human progress. The rulers may be selected by their own usurpation, or their

ancestors, or by the free choice of the people, according as the government is monarchy or republic; and between these extremes lie many grades. But whether it is usurped or granted, the rulers have always a measure of independent power, and the relation of them to their people is clearly analogous to what we found in the individual mind. Among the mass of the people, too, we have many subordinate units. In societies so complex as the modern western nations, these minor units are almost uncountable; they range from social clubs to professional associations, leagues for useful ends, schools, churches, *etc.*—all of which have a centralized organization as a condition of continued existence and effectiveness. The greater the social sense of its individuals, the more of these minor units, or concretions in the social tissue, a given community will contain. They overlap, possessing common members; but they are distinct nodes separated by those sparser portions occupied by the less socially active citizens. The state of affairs might be pictured somewhat after the manner of the arrangement of the stars; closely grouped in many spots, thinly scattered between, and without any apparent regularity of distribution. Such a picture in fact portrays very fairly that general structure of reality which I am trying to present: more or less of a great continuum, with dense aggregations or nodes, each remote enough from its neighbors to be relatively independent, and each surviving because it is held together as a permanent unit by virtue of its centralized and asymmetrical formation.

If the person is the ultimate unit of society, the family is the penultimate one, and should not go unmentioned. Its make-up is obviously enough an example of the same law. In its inception, the asymmetry is extreme; for the parents create the children and exercise over them a supreme control. As development proceeds, the children gradually assume equality with the parents; when this is attained, the asymmetry vanishes, the family normally breaks up as a social unit, and the children themselves start new families.

Envisaging human phenomena in historical perspective, we obtain a like result. History is no tissue of uniform density, but reveals crises, tides in the affairs of men, when vital decisions are made. In the life of the single-celled animal, there comes a period in its growth when its volume is too great for the surface through which it takes food; if its life is to continue, it must divide into two cells. Such division is parturition; reproduction thus marks a critical point in growth, a node from which branches a new organism. In history such critical points occur when a new nation grows out of an older; when, for example, the thirteen colonies broke away from England, or when the waxing strength of Christianity com-

pelled Constantine to avow that religion, or when the Protestant emerged from the Catholic Church; there are thousands of other instances. Such occasions had doubtless gradually prepared themselves as a great mass-phenomenon in the minds of peoples, but the crucial step, taken always by some leader, is of greater importance than any single stage in the preparation. Such a step preeminently controls the destiny of the people concerned. Historians used to chronicle the battles, the royal edicts, the rise and fall of kings and heroes; to-day they prefer to trace the more hidden development of peoples and institutions, of class-consciousness. Yet the older way was based upon a sound instinct. The outstanding figures, the great men, accomplished more than any other one person; and in unconscious recognition of this truth we always find the hero more interesting than the average man—which is why nobody really wishes to be commonplace or really believes that he is so. We may admit that the great man is but the product of his forebears and his environment, or we may declare that he is a force *de novo*, and an original creator. Yet even if he were but a passive reflector of the social waves of his time, it remains true that he, and he alone, was able to gather up the many rays and focus them in a powerful beam of light. Whether mirror or sun, he is equally distinguished from his fellows. He is still the luminous point whence radiate the forces that control the future; and without that concentration and re-arrangement, great changes have not ever occurred.

Let us now pass from the world of humanity to the world of Nature; and first to the inorganic side. The starry heavens look to the layman quite unbounded and irregular. Yet an eminent astronomer tells us that “the universe, so far as we can see it, is a bounded whole. It is surrounded by an immense girdle of stars, which, to our vision, appears as the Milky Way. While we can not set exact limits to its distance, we may yet confidently say that it is bounded.”¹ “. . . the stellar system is not an irregular chaos,” but is “built up with special reference to the Milky Way as a foundation” (p. 38). “We might have agglomerations of stars like those of the Milky Way situated in some corner of the system, or at its center, or scattered through it here and there in every direction. But such is not the case. There are, indeed, a few star-clusters scattered here and there throughout the system; but they are essentially different from the clusters of the Milky Way, and can not be regarded as forming part of the general plan. In the case of the galaxy we have no such scattering, but find the stars built, as it were, into this enormous ring, having similar characteristics throughout nearly its whole ex-

¹ Newcomb, *Side-Lights on Astronomy*, p. 74.

tent, and having within it a nearly uniform scattering of stars, with here and there some collected into clusters" (pp. 50-51). "What has yet more significance, it is in some respects unlike those parts of the universe which lie without it, and even unlike those which lie in that central region within it where our system is now situated. The minute stars . . . which form its cloud-like agglomerations are found to be mostly bluer in color, from one extreme to the other, than the general average of the stars which makes up the rest of the universe" (pp. 62-63).

We may recall that Kant was filled with awe equally by the contemplation of the starry heavens and of the moral law. Is it not an odd coincidence that we find a somewhat similar constitution in both—in the stars arranged about the ring-nucleus as a sort of directing influence, and in the act of moral choice which selects one tendency from many and subordinates to it the rest?

Descending nearer to our earth, we find such a fact as the solar system. It is believed that this is a sort of stellar unit; that probably the stellar world is largely made of similar systems. Its make-up is, of course, quite asymmetrical; not, to be sure, in the geometrical sense, but functionally. The sun, vastly larger and more energetic than any of its planets, has not only (probably) given rise to them, but dominates their courses. It is, indeed, the source of all terrestrial life. And only by this domination is the whole system held in equilibrium. In so far as it forms anything like an organism of mutually dependent parts, that is because of the centralized power of the sun (a consideration whose importance will occupy us later when we analyze the notion of organism).

For convenience of exposition let us now proceed to the opposite extreme: the smallest known physical unit, the electron. It marks the limit, at present, of scientific penetration; nothing seems to be known about its constitution. It is perhaps spherical, or nearly so, and all electrons are supposed to be practically equal in charge. But we can not find any evidence as to structure until we come to the next higher units, the chemical atoms. Let us see what science has to say of these.

" . . . It now seems highly probable that the [chemical] atom is made up of a minute, positively charged nucleus surrounded by several rings, or better, *regions* of electrons. The total number of electrons is such that their total negative charge is equal to the positive charge on the nucleus . . . the major part of the volume of an atom is unoccupied in the ordinary sense of the word [*i. e.*, it is made of discrete units]. . . . The nucleus is composed of a certain amount of negative electricity and a *larger* total amount of positive elec-

tricity.”² “The electrons surrounding the nucleus are probably in motion about it” (p. 45).

“Certain modern considerations . . . make it seem altogether likely that the atom is really a system of rapidly rotating particles which are very much smaller than the atom itself. If this theory should prove to be true the size and shape of the atom would merely be those of the ‘orbits’ of the outermost of these rotating particles, just as the size and shape of the solar system depends upon those of the orbits of the outermost planets” (p. 61).

Thus electrons are combined in a centralized or functionally asymmetrical way into the next higher unit, the chemical atom.

And such a mode of aggregation endows them with a rich productiveness, even as in human society and in mind an analogous way of combination was the condition of efficiency. Electrons joined into atoms make possible diverse chemical substances, and eventually the enormous number of kinds and qualities of matter. Unorganized electrons are the seat of radiant energy (heat, light, wireless waves), of electricity and magnetism. Not being united in stable groups, they do not form permanent structures, but only processes. Permanent structures like the atom, however, render higher combinations possible, such as the molecule, the crystal, colloid, and living cell—all of which make up what we call gross matter. Gross matter, in fact, simply means a collection of parts which hold together long enough, and recur often enough, to be recognizable, *i. e.*, to display a relative persistence and a character upon which we may count. (The importance of this permanence was brought out by Kant in his First Analogy.) Processes or qualities, on the other hand, are but collections which do not possess such fixity; the electric current, *e. g.*, which is a succession of moving electrons, or light, which is a succession of oscillating electrons. What we know as different kinds of substance, such as wood, iron, earth, air, water, could not be, in short, without the sort of one-sided system which is made by the association of electrons into the atom. Still less could there be worlds, solar systems, constellations. The universe would be one of Heraclitean flux. The highly organized material reality we know, with its infinite wealth of things and properties, would not exist but for the asymmetrical union of the electrons into stable structures.

When atoms combine into molecules, it is believed that the cause lies probably in the attraction between the electrons composing the former. But not all of them; only the surface ones. “Now, there is little doubt that it is the outer or ‘valency’ electrons which are

² Comstock and Troland, *The Nature of Matter and Electricity*, p. 44.

active, and change their positions in chemical reactions."³ This is not true in all cases of energy-transfer from the atom. In the case of atomic disintegration, as with radium, the electrons are said to be given off from the positive nucleus of the atom; but when atoms combine into the next higher unit, the molecule, it is the outer electrons that are the links which hold them together. According to the view of Stark, "a chemical combination between two atoms represents . . . a simultaneous attraction of both atoms for the same electron, which thus forms a bond between the atoms."⁴ Electrons are conceived as lying between the several atoms which compose the molecule. "This theory gives a very definite meaning to the 'bonds' of ordinary chemical notation. A bond represents an electron which is attracted notably by both of the atoms which it joins."⁵ There is certainly a one-sidedness of function, in that certain electrons out of those composing the atoms do the work of the combination. While of course much of this is speculative, it is significant that in so far as definite hypotheses have been framed, they do seem to ascribe to some elements of the molecule a central rôle; these being specially responsible, as it were, for its unity. And we must add that with molecule as with atom, the equilibrium which the asymmetrical arrangement ensures is a prerequisite for the existence of "gross matter."

Consider now events in the world of gross matter. When in a given situation nothing is happening, there is an equal balance of potential energies. In fact, potential energy is just energy that is opposed by an equal energy; as with the ball resting on the table or the water pressing against the side of the pail. Inequality between the potential energies is the condition of something occurring. One-sidedness is what differentiates a dynamic from a static world. And in this one-sidedness, note that energy flows from the higher to the lower level. The warmer body gives off its heat to the cooler; science does not say that the cooler gives off its coolness to the warmer. One is more of a cause than the other. In general the causal relation is one-sided; a fact which some idealists, loving symmetry as they do, endeavor to explain away. But we need not here enter upon the whole question, whether cause and effect are mutually implicative. It may be granted that they are, while yet we find that the cause has a certain dynamic priority which the effect does not share.

Action and reaction are equal, of course; yet in a changing

³ Comstock and Troland, *op. cit.*, p. 89.

⁴ N. Campbell, *Modern Electrical Theory*, 2d ed., p. 341.

⁵ *Op. cit.*, p. 345.

world it takes time before the equation is accomplished; and the action is precipitated by an individual body of higher level than the *milieu*. When action and reaction are equated, nothing more occurs.

Turn now to the realm of biology: here we must begin with the cell and its two parts, the nucleus and cytoplasm.

The relation of nucleus and cytoplasm is roughly somewhat as follows: the nucleus is the seat of greater activity and is more constructive. In fertilization, the active spermatozoon contains mainly nuclear material. The head, which is almost all nucleus, leads the way; it is the pronuclei that fuse, and in the nucleus the process of mitosis begins. It is not until after the daughter nuclei are separated (in the last phase) that the cytoplasm begins to constrict and divide. The nucleus contains the chromosomes, which seem to be purveyors of the inheritance of individual traits. In the living organism when no fertilization is occurring, the nucleus is still the more active. Rich in phosphorus, it seems to be the seat of assimilation, growth and repair. Denucleated cells may for a time remain alive, though without adding new tissue. The integrity of the nucleus seems to be essential to cell-life, for whereas the cytoplasm may vary in shape, the nucleus preserves a fairly constant and nearly spherical form. The more active the metabolism, the larger the nucleus. Cytoplasm would seem to be a reservoir in which the nutrient material is stored up; for example in eggs, which attain great size by reason of the amount of food they contain. “. . . The differentiation of the cell-substance into nucleus and cytoplasm is the expression of a fundamental physiological division of labor in the cell. . . . in the entire absence of a nucleus, protoplasm is able for a considerable time to liberate energy and to manifest coordinated activities dependent on destructive metabolism. . . . the nucleus is ultimately concerned in the constructive or synthetic process, whether chemical or morphological.”⁶ Also “there is reason to believe that it [distinction of these two] is in some manner an expression of the dual aspect of the fundamental process of metabolism, constructive and destructive, that lies at the bottom of all life.”⁷ Hereby the nucleus appears to be predominantly the maintainer if not the creator of the cytoplasm; the latter is the retainer of potential energy which it receives from the nucleus, uses and finally loses. The relation between them is like that of agent and patient; the nucleus being the dominant one, though both are necessary to life.

In the highly developed organism there is a clear difference of

⁶ Wilson, *The Cell in Development and Inheritance*, p. 358.

⁷ *Op. cit.*, p. 22.

emphasis. Functionally, one or a few organs are the rulers. As we proceed from lower organisms to higher, this is the more evident. "... the most thorough-going despotism exists in the higher animal in the dominion of the nerve-cells over the cells of all kinds of tissues. The higher we go in the animal series, the more we see the tendency of the nerve-cells to extend their dominion to all the tissues of the body. The loss of independence thus resulting goes so far in many tissue-cells that their vital activity sinks to a minimum so long as it is not stimulated by impulses from the nerve-cells.⁸ . . . In addition to the principles of dependence and cell-differentiation a third principle comes into consideration, namely, that of centralization of administration."⁹ "We have in the central nervous system a central organ which alone has the function of uniting cells, tissues, and organs with one another, so that an advantageous co-operation of them becomes possible; and the farther we ascend in the animal series, the more we find the tendency of the central nervous system to extend its authority toward a unified control of all cells and cell-complexes of the animal body."¹⁰

In fact, the very terms "organism" and "organization" connote asymmetry and the predominance of one principle, element, aspect, over others. What is an organized society but an asymmetrically individuated crowd? It has a leader, president or other chief officer, selected committees, the rank and file of members; it has its constitution and by-laws. Is not a living organism a similar arrangement of tissues and organs? If instead of constructing a definition upon the basis of some cherished ideal, we consider actual organisms, we shall hardly deny this. Having failed to regard such evidence, many have been misled by the doctrine of Kant. That philosopher, with a truly idealistic blindness to specific detail, foisted upon us a definition whose elegance effectually conceals its poverty. That each part is both end and means is not the essence of the organism, but a derivative property; by overlooking the essence we make the organism look so unlike the general custom of inorganic nature as to appear a *Wunder*. But an organism, our survey indicates, is essentially an order of parts and functions in equilibrium in which one part has the function of controlling the rest. The better organized a social group is, and the higher an animal, the nearer it approaches this condition. Equality of parts and community of functions mark only the lowest and least organic of living things. Division of labor and mutual support are but a consequence of this superiority of

⁸ Verworn, *General Physiology*, Eng. tr., p. 572.

⁹ *Op. cit.*, p. 576.

¹⁰ *Op. cit.*, pp. 577-578.

one factor. The highly organized metazoon is only an individual cell cloven by successive fissions into many cells; its unity is no mysterious property, superadded to the many cells, but is simply the original unity, the fact that they all come from one cell. Division of labor follows division of the cell. At the beginning the single cell performed all the essential functions: nutrition, secretion, circulation, nerve-conduction, reproduction, *etc.* Each cell of the later stages retains all these functions, but some tend to assume certain functions to a greater degree than others. Some cells become organs of nerve-conduction, some of circulation, some of reproduction, and so on. This partition of function is just continuation by each cell, or group of cells, of the same tasks it originally fulfilled, in some directions increased, in others diminished. As the cell-groups (tissues, organs) become more differentiated, the connection between them itself becomes more of a distinct function, and assumes a distinct organ, the nervous system. The nervous system and its dominance over the other organs and functions is but the record, the sign manual, of the original unity of the present cell: it is that unity continued. To it is due cooperation of the many organs, their mutual support—all that equilibrium and symmetry upon which we have hitherto been wont to dwell as the true organic character. But this character, we now see, is quite secondary. It is the superiority of the centralized agency that ensures the coordination and cooperation. Upon an inductive basis, then, we should conclude that an organism, be it living or social, is functionally an asymmetrical affair; a group of things and functions controlled and systematized by one of their number.

There are many other ways in which the one-sidedness of reality might be illustrated. The irreversibility of growth in living beings is patent to all; the degradation of energy in inorganic nature, the priority of cause to effect in time, and in contrast the superiority of the final to the initial stage in the world of values. These, too, are fairly fundamental traits. But leaving now the inductive evidence, we must inquire into the significance of our results.

The structure and behavior here pointed out are too widespread to be attributed to coincidence; they would seem to reveal some law or intrinsic property of being. Nor are they superficial phenomena; in each field we have dealt with the elements, and have found that their effectiveness, their very ability to contribute as they do to their *milieu*, is due to the trait in question. Must this principle of asymmetry, however, remain a mere statistical result or can we find in the nature of things a reason for it? I believe that we can find such a reason.

First notice that the contrasted and opposite category of uniformity can hardly be an ultimate principle. The atoms of science have been said to suggest "manufactured articles." It is because they could not of themselves get to be so much alike; it would be a coincidence almost infinitely improbable. Difference, unevenness, asymmetry are *a priori* much more likely. In a chance-world, they could occur in an infinite number of ways; uniformity in but one way; which means that they need far less explanation. Asymmetry is in this sense deeper than symmetry. But why the particular type that we have found so ubiquitous and influential, *viz.*, that of asymmetrical control?

Perhaps we may assume that in any kind of a world which comprises events, physical or mental or anything we can conjure up, there will be tendencies. It seems also, almost if not wholly a corollary that these tendencies will be fulfilled if nothing opposes them. For is not that what "tendency" means, *viz.*, that something will occur unless opposed or prevented? In so far, then, as one tendency is kept from fulfilment, this must be due to an equal balance of itself and one or several others. Now in so far as such a world is at all intelligible, there must be identifiable terms: terms which have constant attributes. Absolutely constant these need not be, but only constant enough to permit recognition, in case any one were aware of them. In the physical world such terms are things or objects. In the mental or spiritual world they are concepts, meanings, or other recurring entities such as particular values, persons, or what not. Now if these recur practically unchanged, it means that the tendencies or forces which constitute them must be held together. What is in general the condition of such holding together? What kinds of groups of tendencies would hold together? Those only which were in equilibrium. But the condition of equilibrium is a balance of opposing tendencies. Now whenever a number of tendencies are associated, it is practically certain that they will not be equal. Exact equality is indefinitely improbable; there will almost certainly be one greatest one. The group will stick together just so far as this strongest one is able to hold the rest; so far will they form a system of equilibrium about this superior one. Wherever such a group occurs, we shall have relative permanence, where there is no one tendency strong enough to hold others around itself, there will be no permanent terms, but only change. To speak in biological language, the only collocations or groups of tendencies that will be strong enough to survive the buffets of the environment are those in which one (or perhaps a very few) are so much stronger than the rest as to be able to hold

several in equilibrium; the stronger being naturally fewer than the weaker, the controlled more numerous than the controllers. *A priori* it is possible, of course, that two equal and opposite tendencies might meet and form a permanent group in equilibrium. But the degree of equality which this would require is very unlikely to exist. It is because difference and inequality are the natural state of affairs that asymmetrical equilibrium is to be expected in a law-abiding world of events. And with this our law of asymmetry appears to be no mere coincidence, but a very probable, i. e., a rational thing.

Let no one here object, then, that we have dwelt too much upon the asymmetries in nature and mind, and overlooked or belittled the many instances of symmetry. Symmetry and uniformity are common enough. There is, first of all, space; there are also the approximately uniform atoms of each element; the electrons; the customs and manners in a given level of society; the sameness of dress, language, ideals, interests—and so on without end. Of course we admit all these, and we admit also, if one insists, their indispensableness. Sameness is as necessary as difference; approximate equality as decided inequality. But the whole question here raised is the question of their relative metaphysical value as needing further explanation, of their comparative degree of contribution to creativeness and progress. While both symmetry and asymmetry are real and indispensable, the latter is in a dynamic world the more ultimate and the more potent. It has higher metaphysical rank, and therefore it should receive the greater emphasis.

The view which I have set forth is not pluralism in the customary sense, because it does not deny the interdependence of the units in any field, or of all parts of reality. It is not what is usually delivered nowadays under the title of monism, though not inconsistent therewith, because monism contents itself with showing the organic unity of reality. Monism is an abstract and meager account of things. The unity of all that is real may be a very unimportant characteristic; for instance, it adds little to the intelligibility of the material world, that all parts of it are held in place by gravitation. Across the enormous distances which separate the stars, gravitation is of but trifling consequence. So it is with minds; many minds are no doubt spiritually as separate as the stars. Perhaps ultimately all are interdependent; but that interdependence contributes little to the understanding of individual, or even of national and racial traits. We need a more specific characterization of reality; one that bears upon the particular properties of real things; and as such I offer the law of asymmetry here expounded. Such a view, it seems to me, alone does justice to those irregularities and nodes in the

real continuum which modern pluralism and radical empiricism love to dwell upon; yet it does not, like those views, endeavor to refute the system of monism.

Finally, I may remark that monism, emphasizing symmetry and uniformity, favors current democratic ideals; whereas my own view, laying stress on distinctions and inequalities, tries to do justice to certain aristocratic motives which are in danger of being quite neglected to-day.

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PLURAL SOVEREIGNTY

EVER since I read Mr. Laski's interesting volume on *The Problem of Sovereignty*, the ideas of a pluralistic state and of pluralistic sovereignty, found there and elsewhere, have been troubling me. I felt that I had decided sympathy with the group idea in politics, I knew that I had no friendliness for the absolute state, but yet I felt uncomfortable in the presence of these ideas about plural sovereignty without quite knowing just what was the matter. The present paper is merely an attempt to make a little clearer to myself what is involved in these ideas and does not profess to offer any positive doctrine as to the proper and final meaning of sovereignty itself, for I recognize only too well with Willoughby "that there exists no other term in political science, regarding whose signification there exists such confusion and contradiction of thought, and in regard to which such an amount of dogmatism has been preached."¹

The point of departure for the new doctrine is opposition to the classic idea of the necessary unity of sovereignty as expressed in Rousseau's contention that though power may be divided, will can not. Sovereignty, as the characteristic of the general will, is by its nature indivisible, for the will is, or is not, general. If general, it is one; if not general, it is only a particular will and can lay no claim to sovereignty. Either no state and no sovereignty, or one state and one sovereignty, is the doctrine. It is this traditional doctrine of the inherent and necessary unity of state and of sovereignty that the new doctrine opposes, contending, as I understand it, that this unity is as may be, that it is wholly a matter of fact, not deducible from the abstract ideas of either sovereignty or the state, but determinable empirically on the basis of the actual control exercised by any given state. It is not a question of the state in the abstract or of sover-

¹ *Nature of the State*, p. 185.

eignty in the abstract, but of given concrete states, and these may be one or many and their sovereignties likewise unitary or plural.

Sovereignty, as Laski sees it, is authority, and authority rests upon consent. The authority of law is merely its power to induce obedience and this power, in turn, is just the power that makes it to the interest of the subject to render obedience. Whether it is a matter of coercion or free assent, in all cases, there is no authority save as the individual's interest is evoked, either directly through his sharing in the state's purpose, or indirectly through the rewards and penalties inflicted through the agency of those who *are* directly interested. Sovereignty means nothing save as an actually effective motive working in society—it is “the ability to secure assent.”² Whatever organization of men, by means of the interest of its embodied idea, has this ability to secure assent, is sovereign. The question is not one of right, but of fact. A sovereign who is not really sovereign, is really not a sovereign. The sole problem is as to whether a given organization actually can control. If it can not, it is itself subject to some other body able in fact to command allegiance.

To ask, then, of any given political or national entity, whether it contains one sovereign or many, is to ask whether there is one dominant interest or many. More specifically, it is to ask whether the institution we call the state actually has the ability to secure the assent necessary to constitute sovereignty or whether on occasion there may not be other organizations whose hold on men may be so strong as practically to supersede the sovereignty of the state. Reference to facts seems to show that frequently interests conflicting with the state make a stronger appeal than it to the allegiance of men, an appeal so strong that the state dare not resist it and is forced to give way to a sovereignty greater than its own. Again and again the church has defied the state and, with increasing frequency, the labor unions are doing the same. If this is the case, the argument runs, we must deny sovereignty to the state in any unique or unitary sense, and recognize it as only one of the organizations in the group, competing, by its offered interests, with other organizations for the allegiance of its members.

Or, to put it from the other point of view, the individual is a center of interests which have found for their satisfaction state and church and labor union, each of which is sovereign only in the degree to which its respective interest is dominant in the individual and can determine his action. Which interest actually is to be dominant is not determinable by reference to the concept of the institution,

² *Problem of Sovereignty*, 1, 14.

but solely by the facts of the social will of the time. Sovereignty is thus not an essential attribute of a unique institution, but a function of the relation of any institution to the interests of its members. Institutions may thus be regarded as bidding competitively for the good will and allegiance of their members, that one being sovereign in any case, or at any time, which can make the most attractive bid. And that the state often fails to make that most attractive bid we need small knowledge of history to tell us.

As one considers the fundamental principle of this doctrine of sovereignty, perhaps the first impression one gets is that it does not seem to be such a startling novelty as its proponents imply, nor even, perhaps, as dangerous. Surely it was not left for latter day pluralists and pragmatists to recognize that sovereignty rests on interest and not on some bloodless abstraction out of relation to human passion. Only the fathers called it the general will, or some such name as that. T. H. Green, for instance, in distinguishing the real basis of sovereignty from its nominal embodiment, says: "This power is a much more complex and less determinate, or less easily determinable thing; but a sense of possessing common interests, a desire for common objects on the part of the people, is always the condition of its existence. Let this sense or desire—which may properly be called general will—cease to operate, or let it come into general conflict with the sovereign's commands, and the habitual obedience will cease."³ In other words, the ostensible sovereign loses the interested support of the people and sovereignty takes on another embodiment. Both this basis in interest and this possible shifting of interest are thus recognized by the older writers.

Whatever novelty the doctrine has, therefore, belongs to the inferences drawn from these facts. Just what these inferences are meant to be, however, I am unfortunately not wholly sure. But one such inference is that since the political organization representing the state in any given country is sometimes unable to control all its included groups, we must recognize the sovereignty as having passed from the state to that institution or group which has shown itself actually able to enforce its will, say a labor organization. But now what conditions of affairs do we have in such cases? When, for instance, to use an illustration of Mr. Laski's, the British miners during the war were able to hold up the government and enforce their demands, or the American railway men succeeded in securing their increases in wages and adjustment of time through threat of strike, it looks as if we had a threat of forcible resistance to established order preliminary to the overthrow of that order and the in-

³ *Principles of Pol. Obligation*, §84.

troductioin of anarchy. The unions seemed to be treating with the government not as subjects, but as equals, and threatening a state of war. There seemed more than a suggestion of opposing sovereigns within the limits of the national boundaries and a challenge to settle irreconcilable demands by the ordeal of battle. But the facts are susceptible of more than one interpretation. The question would turn on whether the protesting organization were opposing its own force to that of the state and obtaining supreme power to dispose of the affairs of the nation, thus superseding the political organization, or whether it were merely bringing its organized influence to bear upon the government to act in its special interest. The fact that five or ten per cent. of the citizens organized in an industry exert pressure upon the government to do its will is only an extreme instance of a normal occurrence. It may be only a more emphatic way of registering those protests which are often the necessary means by which citizens indicate their will to the government. The protest may be made, not as an alien group against the state, but as citizens with a special interest within the state. The resultant action of the government reflects this expression of the popular will, expressed in non-legal forms it is true, but yet in substance an expression of the civic will which constitutes the state. There is here nothing to indicate the transfer of sovereignty from the political to the industrial body, nothing to suggest a plurality of sovereigns.

The case would be different in so far as the protesting body explicitly repudiated the control of the government and asserted its right to take supreme control into its own hands. It would, in this case, be denying the claim of the government to represent the general will of the people and asserting its own fulfilment of that function. The condition would be one of rebellion or insurrection and the success of the revolt might lead to the establishment of a new government or a new political organization. But, as before, there seems nothing implying plural sovereignty. The general will has asserted itself by repudiating the government, its professed representatives, or by altering the general structure of political life and adopting a new constitution. There need be involved no idea of setting up beside the state a coordinate power, or of substituting purely industrial control for political sovereignty. The whole action may be a political movement though undertaken mainly for economic ends and led by industrial leaders. The struggle might have been one, not between competing sovereignties, but between rival claimants for the single sovereignty in the state. The end and prize is a political end and the struggle is to determine whose will is to be

the dominant one in determining the form of that end. The question is as to whose idea of the political good represents the general will and is to be the organizing principle of the state.

But we may have a third case, in which it is not a matter of a group within the state exerting pressure upon the government to accomplish its ends, or of an organization forcibly opposing the government by insurrection, where, in neither case, is it a question of the sovereignty of the state as such, but only of what party or group really represents the state. In this third case we may have a group refusing to recognize the sovereignty of the state as such and insisting that in matters pertaining to its special interests it has a sovereignty coordinate with that of the state itself. Under this hypothesis, we may have the church maintaining its autonomy in all that pertains to its own doctrine and polity and refusing to recognize the right of the state to interfere. And the church may happen to be such a powerful organization in the state that the majority of citizens may feel themselves churchmen rather than citizens and act as such whenever political and religious interests seem to clash. This seems to mean that we have here no more temporary clash between the state and a subordinate group recognizing itself as such, but a permanent and self-conscious division of powers between sovereign bodies, sovereign because they are able to make effective appeal to the interests of their respective members.

The idea of plural sovereignty here seems to have some meaning, yet still there remains some difficulty in the conception. The plurality would be clear enough, if, as in the case of national states, the sovereign bodies were distinct. We would then have distinct interests appealing to distinct wills and reaching a *modus vivendi* by external negotiation and treaty. There would be no unity of subjects and hence no unitary organization. But in the case of different organizations within a national group we have no such distinctness of effective wills, the component groups overlap. The churchmen may be to a large extent workers, and all are included in the political group. The division is not between the concrete individuals, but between the various interests of these individuals. The struggle is not between individuals, but between the conflicting interests of the same individual. It is the tragedy of the divided will. When, therefore, the pluralists insist on the analysis of the national state into component sovereign bodies and deny the reality of any unitary will and sovereignty, they seem to be reckoning without their host. The analysis and delimitation of functions is not to be done by separate entities but by the common body. It is not Tom the churchman and Dick the laborer and Harry the citizen

who treat as distinct sovereign powers, but Tom, Dick and Harry, churchman, laborer and citizen at once, who work out the *modus vivendi*. The appeal made by any organization, therefore, has its power over its members limited by the whole complex of interests embodied in them. Its appeal is a partial appeal to a partial self. The response of such a self, so far as it is a reflective and intelligent response, will therefore be made only in the light of its knowledge of its own complete interests and larger self. It will act as a whole and not merely as a part. In so far, however, as it acts as a whole, it is acting from a point of view which may properly be called that of the state, for no other institution professes to represent the interests of society as a whole. It is not relevant objection to this that the actual state does not represent the true general will, but is always a class institution, for a similar objection may be made to any organization that it does not realize its idea. It remains true none the less that the state is the only institution having for its function this organization of interests and groups, and that unless one is to despair of any such organization one must turn to what is a state in fact, if not in name. Man's unique interest in the state, as Hocking says, is "his unique interest in not being torn asunder"⁴ by his competing interests or vital circuits. It is the very multiplicity of these interests and groups that distinguishes civilized life from primitive life with its few and statically determined groups and it is this that sets inevitably the fundamental problem of their organization. We may refuse to isolate the political organization and may identify it with an industrial organization, but under whatever name it may masquerade, there is bound to emerge some comprehensive body representing the principle of control in the interests of the whole and possessing authority based on its furtherance of those interests, an authority not coordinate with, but superior to, that of any special interest.

Of course, this raises the question, involved in the whole discussion, of the nature of the state as validating its claim to sovereignty, and it is upon his conception of the relation of the state to other associations that Mr. G. D. H. Cole bases his theory of social obligation. Instead of merely pointing out the actual failures in sovereignty, as does Mr. Laski, Mr. Cole takes his stand upon the distinction in function of the various associations within society, calling attention in this respect to the recent theories of corporate personalities as worked out by the English and German jurists. These associations are distinct entities and not merely subdivisions of an all-inclusive state. They differ in kind and not in extent and hence

⁴ *Int. Journal of Ethics*, XXVIII., 321.

their interests and the claims based upon them can not be merged in those of the state. Under this interpretation the state is a merely geographical division ministering only to those common interests which are geographically conditional and bearing no real relation to the bodies representing religion and industry..

In spite of this unrelatedness of these various groups, however, he is not quite ready to admit that this means anarchy. The very process of functional devolution, as he calls this coordination and delimitation of groups, will tend to make conflicts less frequent since the limits of each association will be more strictly defined. The meddling of the state with labor will be no longer possible. But yet he admits that, while "a division of spheres would obviate many of the conflicts of to-day," yet "as both religion and, still more, industry, have their relations to men in their geographical groups, the possibility of conflict can never be altogether avoided."⁵ In such cases of conflict where would sovereignty reside? "Clearly it can not lie in any one piece of machinery; either it is not embodied in any machinery at all, or else it exists only as the resultant of a system including many pieces of machinery of varying kinds."⁶ Recognizing the fact that all machinery does violence to true will, he states the problem as that of finding the fullest possible organized type of will with which, if anywhere, sovereignty must rest. Such a will can not be that of the state, the church or industry. Nothing less than society, the complex of organized associations, can be the embodiment of the true general will. That society at present lacks determinate organization makes no difference from the theoretical point of view. To give it adequate machinery to fulfil its supreme function is the business of the practical man and not the philosopher. Mr. Cole's own final suggestion that probably some form of federation in which both the state and the other functional organizations might be represented, is the best we can hope for in the way of a machine making effective the will of the sovereign society. Ultimately, the individual will himself have to make his personal choice between institutions where conflict is not to be avoided, and the principle of his choice can only be the good of society as a whole.

I have called attention to this argument of Mr. Cole's; partly because, starting from the same apparently pluralistic conception of society as that held by Mr. Laski, he yet is forced to the recognition of what seems indistinguishable from a unitary sovereignty, though at present lacking in the machinery to render it effective in reality;

⁵ "Conflicting Social Obligations," *Aristotelian Society Proceedings*, 1914-1915, p. 155.

⁶ *Ibid.*, p. 156.

and partly because it reveals the difficulty involved in all discussions of political theory, that of the unfixity of fundamental terms, here the uncertainty as to the meaning of the term state. The pluralists make their point by emptying the concept of all but geographical content and then have no difficulty in opposing to it, as functionally different, the organizations of special interest, although, as a matter of fact, they are finally forced to recognize that as geographically conditioned these groups are related and that there is a good of the whole not provided for in the good of the parts. Since, however, the geographical group is the only universal group, comprising as it does the members of all groups, its own members, therefore, embodying the greatest variety of concrete and complex interests, it is hard to see why it is necessary to discard the state and recognize a new unity called organized or federalized society to be the bearer of the ultimate sovereignty. The possible improvement of political representation by the recognition of groups or guilds would seem a matter of governmental detail and not of special significance for the theory of sovereignty.

My conclusion then is, that the attempt to establish the theory of plural sovereignty, whether by proof of the actual failure of the state to maintain itself as against other organizations, or by evidence of the functional differences and coordination of groups within a given geographical area, fails because of its lack of recognition of the necessary demand for unity in the life of reason as well as by the arbitrariness of its limitations of the function of the state. Of course, one may escape from the state and its sovereignty by taking refuge in anarchy, just as one may avoid rational self control by giving rein to one's impulses, but, so long as one retains the conception of sovereignty at all, its unity in a state seems inevitable.

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IS PLEASURE OBJECTIVE?

MR. WALLIS attempts, in two recent issues of this JOURNAL (June 5 and July 3), to give, in the interests of ethics, an "objective" definition of "pleasure." Pleasure is "the doing of a thing for its own sake, or, more accurately, that which, all things considered, should be done for its own sake." . . . Such an enterprise should not pass unchallenged, for it is not an isolated phenomenon, but is typical of a widespread contemporary impatience with the subjective, and twisting of psychological terms to behavioristic meanings. May I enter a demurrer?

1. Even granting that such concepts are more useful for ethics than that of "pleasure" in the old sense, it is too bad to confuse matters by adopting the old word for the new idea. Those of us who are not blessed with the behaviorist's blind spot seem to find a certain *quality* in our experience, of extraordinary interest, that we call "pleasure." Even supposing this quality never to be experienced except when we do things for their own sake, yet by the word "pleasure" we mean something other than the doing. To hold that this quality of experience really *is* the same thing as the activity in question is perhaps an arguable theory. But certainly until that theory is proved it would be misleading to call both things by the same name; while to deny that what people generally have meant by the word is a legitimate object of discourse would require still more elaborate argument. It is an interesting suggestion, that right and wrong really analyze down to activities-for-their-own-sake, instead of to activities-that-seek-pleasure-and-avoid-pain. But why confuse a discussion by stealing your opponents' word? Especially when theirs is the common usage of men?

2. Mr. Wallis's two definitions are, of course, quite incompatible. What I take him to mean, however, is that activity done for its own sake is *called* pleasure, thought of as pleasure, whereas only that which *should* be done for its own sake is *really* pleasure. That is, having taken the term at first in a physiological-psychological sense, he ends by using it as an ethical concept. This is blurring meanings still further, when what we need is discrimination. Surely his argument would be clearer if he would use for this ethical meaning the term "the morally good," or "the right."

3. It is this ethical use of "pleasure" which gives meaning to his statement that "the experience in the past adjudged a pleasure must, perforce, be readjudged in the light of this larger knowledge as less of a pleasure, or as no pleasure at all." The past experience can be adjudged to be bad, morally. But that judgment can not alter the fact that it was pleasant (in the usual sense, or in his own first sense) at the time when it was felt. If it was felt as a keen pleasure, then no moral disparagement can make that earlier rating untrue. That is to say, there are two standards of rating, the psychological rating, *qua* pleasure, and the ethical rating, *qua* morally good. Of course our own rating of the pleasantness of our experiences is, as he says, "not sacredly and invariantly true." We are careless in introspection, quickly forgetful, and highly inaccurate in comparisons between different experiences. But this inaccuracy of judgment as to the degree of pleasantness of an experience has nothing whatever to do with the condemnation of the activity that produced

the experience on moral grounds—*i. e.*, because of its subsequent results. To say that “the greatest pleasure is the realization of life purposes” is to pronounce a moral judgment—to say, namely, what is the *summum bonum*, what we *ought* to take most pleasure in. We do actually, of course, take keen pleasure in activities that thwart our life purposes. It would be an utterly forced use of language, to say that what most conduces to our life purposes is to be *called* “pleasantest.” In other words, the “duality of judgment” is not, as Mr. Wallis would have it, between pleasure and the consciousness of that pleasure; it is between actually felt pleasure and the badness of the pleasurable act because of its *effects* upon *other* moments of experience.

4. But suppose we concede Mr. Wallis the right to use terms in his own way, however unusual. We have, then, for our criterion of right and wrong, instead of feelings of pleasure and pain (which are essentially private and non-measurable, and so an elusive guide) an objective criterion—the degree to which activities forward our life purposes. Here we have at least a “usable,” “workable” concept. . . . But I wonder. Which life purpose is to be preferred? What are we to do when various life purposes conflict? And how shall we determine which of various possible lines of conduct will, in the end, best forward the chosen purpose? And must we ruthlessly turn away from all activities that do not forward that purpose? May not various activities be legitimate and desirable, other than those closely coordinated with a leading purpose? . . . In brief, I raise the question whether the proposed criterion really offers more definite guidance than the hedonistic criterion. After all, it is fairly easy to discover the general effects upon human happiness of various ideals of conduct; we are all much alike, capable of similar joys and griefs. Whatever uncertainty there is (and there is, of course, a good deal) is not to be removed by the discovery of a more “objective” criterion. Life must remain an experimental enterprise. Ethics can never be a hard-and-fast code, but must remain a series of suggestions, competing ideals, revealing unsuspected possibilities to this man, warning that man of pitfalls which others’ experience has found, and bringing up the mass of obviously stupid and shortsighted conduct to the level of the relatively fortunate solutions discovered by the most successful.

5. Finally, the truth that existing “purposes” must be considered in our moral ideal, and not needlessly crossed, and the truth that it is well to have a dominating life purpose, are not the bottom truths of ethics. The question *why* remains. *Why*, ultimately, is it desirable to realize any purposes, rather than to cross them? *Why* a

"life purpose" rather than miscellaneous and transient purposes? What does it *matter* which way of life you choose? The answer, it seems to some of us, is that one road leads, in general, to greater happiness than the other; unless it does, there is no reason for preferring it. In short, we need not only objective clues to wise choice, we need a reason for choosing. In a world without hedonic differences there would be no use at all in having any ethics. The ultimate seat of all value is just this despised subjective, unsharable feeling of pleasure. Unless activities are going to produce that sort of feeling somewhere, in some one, they might as well not go on at all. To eliminate "pleasure" in the common, subjective sense of the term, is to eliminate the motif for ethics.

DURANT DRAKE.

VASSAR COLLEGE.

REVIEWS AND ABSTRACTS OF LITERATURE

The Realities of Modern Science: an introduction for the general reader. JOHN MILLS. New York: The Macmillan Company. 1919. Pp. xi + 327.

This is not a metaphysical inquiry. Philosophically the author is naïvely realistic. The purpose of the book is to give to the "general reader" an initiation into the terminology, and an acquaintance with the favorite entities of contemporary physical chemistry. So far as the author has any further thesis, it seems to be this, that molecules, atoms, and electrons have so frequently and variously been measured; with results so corroborating one another, and explain deductively so much which formerly was only in the status of "empirical" law, that they should now be considered no longer as hypothetical entities or convenient concepts, but as "the realities of science." The general reader to whom this book is addressed should not be too general a reader; preferably he should be a person who knew a considerable amount of physics and chemistry in former days, but has been neglecting them of late, and one, moreover, who can read a mathematical equation and have it mean something to him. Such a reader would indeed profit from what the author has to give him in the second half of this book.

The book, however, is two distinct books in one. The first half is taken up with a general review of science from the ancient Egyptians on down, through Thales and other well-known characters, with a few speculations as to the prehistoric. Even such a sketch, too hurried to be altogether accurate, may be of use to some readers, but scarcely to those who would profit from the rest of the book. After

a first chapter on electrons, there is then another introduction, this time mathematical. Force is here defined as a mathematical abstract concept of the rate at which energy changes over a space. Many readers would probably miss the point of these chapters, good as they are in substance. Then follows the second half of the book, the profitable part for most readers. It takes up such topics as the kinetic theory of gases, electric currents as moving electrons, equilibria, ions, *etc.* The exposition has a certain unity as an introduction to physical chemistry. Some beautiful bits of exposition are here interspersed with other sections that are quite unnecessarily puzzling. The author has done his work pretty well, yet gives the impression that he might have done it better.

There is a genuine place and need for popular expositions of scientific progress in the various fields, expositions which are not intended as text-books for embryo specialists, and do not assume too infantile an intellect on the part of the reader. Yet few writers who try it make much of a success at it: to be a Tyndall or a Huxley requires, it would seem, a peculiar gift. But some of the fault seems to be attributable to a lack of appreciation of the difficulty of the task, perhaps to a carelessness born of the feeling that science is changing rapidly, and such a book is bound to be ephemeral. Or the author, though knowing his subject, may forget his reader just long enough to cause the latter to lose the trail. Often the effort after simplicity results in scraps and fragments. This is possibly the commonest fault of all. Not enough is said on a given topic to drive it home. It is better to be rather repetitious and detailed, if only the outline is kept clear. Mental digestion, like physical, is not instantaneous. We might picture the intended reader as one willing to be interested, but tired after a hard day's work at other things. He is subject to occasional inattention, and so the important points need to be repeated and progress summarized from time to time. He may be unexpectedly ignorant or forgetful, and references to even the supposedly well-known should be in full. Comparison and analogy should be freely used. But most important of all, he is a human being, and the whole presentation ought, therefore, to be enlivened by anecdote or filled out by concrete detail, even though these be logically almost as redundant as the changes of posture and flourishes of a piece of chalk with which the skilled lecturer keeps his audience psychologically awake. Meanwhile the author can not argue difficult points, or put in the exact shade of qualification. The outcome is, that even after all effort and with the best intentions, your popular exposition may merely teach the unsuspecting reader a number of "facts that are not so." This is why the writing

of a book "for the general reader" is a problem whose solution requires a disproportionate expenditure of time and thought, only to leave us often in the end dissatisfied. Such, to a considerable degree, is the book before us.

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The Psychology and Pedagogy of Anger. ROY FRANKLIN RICHARDSON. Educational Psychology Monographs, No. 19. Baltimore: Warwick & York. 1919. Pp. 100.

This is a good attempt at a practical introspective study in a field where objective studies are extremely difficult. By combining the coincidences among the notes on 600 cases of anger recorded by a dozen observers, Richardson has worked out typical descriptions of the mental situation stimulating anger, the behavior of consciousness during anger and following its disappearance. Three different types of anger appear. (1) Arising from a fore-period of irritable feelings. (2) Arising from an idea exciting negative self-feeling and followed by an activity for restoring positive feelings of self-importance. (3) Arising from social sentiments involving justice and fairness and coming suddenly without cumulative development of the feeling. The author is much interested in the reactive side of consciousness. He finds attributive reactions which express the pugnacity of the basal instinct by hostile witticism, sarcasm, cutting remarks, *etc.*; or a contrary conscious attitude expressing, "What's the use?" or an indifferent reaction. By making his analyses after the collection of concrete examples, the method is an advance over the personal speculations which have hitherto been available.

The pedagogical chapter dwells upon the utilization of anger rather than upon overcoming it. "From a pedagogical view, it should be cultivated and excited aright." The teaching of "love your enemies" would, in the author's opinion, fall short. "Anger, sublimated into keener intellectual and willed action, . . . is working in better accord with the evolutionary function of the emotion—to intensify action in a needed direction." Is it possible that those with strong native tempers to-day have an advantage? One wonders.

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JOURNALS AND NEW BOOKS

REVUE DE METAPHYSIQUE ET DE MORALE. January-February, 1919. *Critique de moi-même* (pp. 1-40): B. CROCE.—Croce's intellectual autobiography. *Ernest Renan et la philosophie contemporaine* (pp. 41-66): D. PARODI.—An interpretation of Renan's philosophy as an indispensable moment in the history of Romantic philosophy as we pass from Comte to Bergson. *Liberté et pensée* (pp. 67-88): M. DOROLLE.—Liberty is made by the effort to penetrate the individuality of consciousness and objective comprehension. *L'entropie, extension conservatrice* (pp. 89-118): L. SELME.—“Carnot's principle has nothing in common with all the vague beliefs in which it has been engulfed. Freed from this improper rubbish, its resplendence will be a fertilizing source for the field of discoveries.” *Etudes critiques. La métaphysique de Josiah Royce (suite)* (pp. 119-147): G. MARCEL. *Nécrologie: Gaston Milhaud*.

Lewis, C. I. *A Survey of Symbolic Logic*. Berkeley: University of California Press. 1918. Pp. vi + 406.

NOTES AND NEWS

THE National Research Council, which was established by the National Academy of Sciences during the war emergency, and which has proved its worth so often and in so many ways during the past few years, has now been reorganized on a peace-time basis and will continue its work of directing and coordinating research, particularly in connection with those problems which are too large in their scope or too many-sided for individual handling. As constituted at present, the Council consists of thirteen divisions, each with a resident chairman and a small office staff in the permanent headquarters at Washington, and several non-resident members. The first six of these divisions comprise the “general relations” group, and include divisions on Government, Foreign Relations, State Relations, Educational Relations, Industrial Relations and Research Information. The last is the largest of these divisions, and will be a clearing-house for information regarding the problems under investigation in the United States and their status. The other seven divisions are devoted each to some special line of science, and include divisions of Physical Science, Engineering, Chemistry, Geology, Medical Science, Biology and Agriculture, and Anthropology and Psychology.

We have just received from this last division, the following account of one interesting feature of their work:

"A special committee of the National Research Council, consisting of Dr. R. M. Yerkes, chairman, and Dr. M. E. Haggerty, of the University of Minnesota, Dr. L. M. Terman, of Stanford University, Dr. E. L. Thorndike, of Teachers College, Columbia University, and Dr. G. M. Whipple, of the University of Michigan, with financial support from the General Education Board, have formulated a plan for using the army mental tests in schools. Such intelligence tests have been used in schools for some time on individual children, but the new plan provides for handling them in groups, even whole class-rooms at a time. The committee selected about twenty tests for careful trial. This trial was made on five thousand children. As a result the committee has now been able to select from the tests two series which seem to be the most satisfactory and these will now be tried on several thousand more children in order that they may be further perfected before they are finally offered to the teachers of the country for general use.

"This carefully worked out programme for group tests will make it possible and practicable to make wholesale surveys of schools annually, or even semi-annually, so that grade classification and individual educational treatment can be adjusted with desirable frequency. It is expected that the methods will be ready to be published for general use early in 1920. The army tests on which these new group tests for children are based and which were used with striking success and advantage during the war, were originally devised by a group of psychologists working under the auspices of the National Research Council."

THE alumni of the University of Nebraska and former students of Dr. Wolfe are undertaking to raise a fund of \$10,000, the income from which is to be devoted to the maintenance of a fellowship to be known as the Harry Kirk Wolfe Research Fellowship in Philosophy.

DR. EDWARD G. BORING, formerly of Cornell University, has been appointed professor of experimental psychology at Clark University to succeed the late Professor Baird.

SPECIAL NOTICE

COMMENCING January 1, 1920, the subscription price of the JOURNAL OF PHILOSOPHY will be \$4.00 a year.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

COMMUNAL GHOSTS AND OTHER PERILS IN SOCIAL PHILOSOPHY¹

WITH regard to the nature of the community I can not claim any special knowledge; and not being ambitious to share the fate of Socrates I make no allusions to other people's knowledge. My part in this discussion is that of devil's advocate, pleading with you against undue haste in canonizing some of the newer tendencies in social philosophy, and, if I succeed, provoking the advocates of these new doctrines to a fuller and more adequate statement of their case. Now it may prevent misunderstanding of the aim of my remarks if I recall to your attention that the devil's advocate is not retained by the Prince of Darkness, but is rather a faithful son and servant of a church that certainly does not overrate the importance of the critical spirit. Some years before the war began to turn the center of gravity of our discussions from epistemology to sociology and politics I urged the philosophic fruitfulness and importance of social theory, and I have not changed my mind in this respect. But like all other things which are valuable social philosophy has its dangers which its candid friends will not hide or minimize.

I

The first, foremost, and all-inclusive danger is that, becoming absorbed in the passionate social problems of the day, we may forget philosophy altogether and become partizan journalists, propagandists, economists, reformists or politicians—anything but philosophers. I am not lacking in respect for the competent journalist, preacher or statesman; but philosophy has its own function distinct from all these; and we who are its official custodians must beware of the danger of being solicited by sentimental sympathy to abandon the hard path of philosophy for more popular pursuits. In these days of waning faith in philosophy the latter course may seem to some not a danger but rather a change devoutly to be wished.

¹ Prepared for the discussion on the Nature of the Community at the meeting of the American Philosophical Association.

They may put it in their own terminology by saying that philosophy ought to abandon the fruitless search for an impossibly impartial truth, to abandon its aloofness from the issues which divide and absorb our fellow citizens. It would take us far afield to defend on this occasion the value of pure or theoretic philosophy. Moreover, there is in this issue as in others an element of fundamental preference and faith which arguments alone can not settle. Arguments at best point to human experiences. They can not compel faith in philosophy in those to whom its keen joys, and the zest of navigating alone the uncharted seas of being, are impossible or look thin and pale in comparison with the more voluminous comforts of being shoulder to shoulder with our fellow beings and having their approval reinforce our echoes of their sentiments. It is therefore merely an expression of legitimate and defensible—yea invincible—experience to assert that pure philosophy, the true love and fearless pursuit of fundamental truth for its own sake, is in itself one of the greatest blessings of human life, and, therefore, never to be entirely subordinated to the solution of social problems—whatever the words solution and social may mean. But while I personally believe that philosophy is in a sense more important than the solution of social problems, I think it is demonstrable (as far as experience makes anything demonstrable) that philosophy can best aid those actually engaged in the more concrete human problems by vigorously maintaining just that spirit of impartiality and aloofness so frequently and thoughtlessly condemned by those whose business it is to think. For if we are honest with ourselves and take social problems seriously (and not merely as toys) we must admit that the philosopher as such is not qualified by training or experience to directly solve the problems which baffle the economists, jurists or statesmen. Neither rationalist nor empiricist today believes in a philosopher's stone or magical first principle which will resolve all human mysteries and remove all human difficulties. The actual solution of human difficulties depends on a penetrating intuition or judgment which requires special aptitude developed by long experience and careful training, none of which is supplied by philosophy itself. Philosophy, by detaching men from current prejudice or the idols of the tribe and the forum, tends to give men a truly liberal attitude to current controversies; but that only makes the genuine philosopher humbly aware of his insufficiency for a task which the community has assigned to others.

Mankind in its painfully slow process of learning by trial and error has learned what so many too-practical philosophers are now at pains to deny, namely that there generally is a practical conflict between the interests of the moment and the more permanent in-

terests of human life, and that those engaged in fighting the issues of the day are apt to overlook the more permanent interests which give meaning and purport to these temporary conflicts. The wisest communities have therefore always set aside spiritual watchers, priests, philosophers, and pure scientists, who by keeping out of the marketplace and the actual *mêlée* of battle are all the better able to help their brothers. To a myopic wisdom it may seem most useless and heartless for the watcher to maintain his post while his brethren are fighting and bleeding most cruelly. But the post of watcher is not without its difficulties. The loneliness is hard, the flesh is weak and the call of sympathy most difficult to resist. Yet it is nothing less than high treason for the consecrated guardians of humanity's ancient treasures to desert in the heat of battle the post they are sworn to maintain.

At this point I can imagine the spirit of the late Theodore Roosevelt, who was wont to measure seers and philosophers like Tolstoy, if not poets like Keats, by what they had to offer to men of action in the conduct of their affairs, interrupting us: "If philosophy can not solve our present social problems, of what actual earthly good is it?" To which I should reply that, apart from the unearthly or invisible positive contributions which philosophy makes to human life by resolutely facing its own problems, it renders a supreme service by setting up a standard of a developed critical spirit without which all solutions of human problems lack the essence of liberality and are, hence, worse than useless. If a modern critical philosophy can no longer pretend to be in possession of elixirs for eternal life or panaceas for all human ills, it may still usefully function as a general antiseptic or disinfectant of intellectual life. I can conceive of nothing more helpful to a distracted world than that men should realize the logical frailties of principles such as democracy, self-determination, or law and order, as absolute rules of political action. A critical attitude to all principles may dampen the intolerant zeal of fanatical partisans and render it easier for men of different beliefs to understand each other and cooperate in a complicated world. I am sure that those more conversant with practical affairs than I am can bring many illustrations of the value of the critical spirit as a wholesome check against party saws and dazzling or blinding first principles. My main contention up to this point is to warn the social philosopher that in trying to save the world he may lose that which has been one of the most valuable contributions of philosophy to human culture, the critical spirit. To revert to our figure of philosophy as an intellectual antiseptic I should say that the philosopher should not undertake to cure the ills of humanity before he has learned to disinfect himself and his instruments.

That our most recent attempts at social philosophy have not conspicuously done so seems to me quite clear. It is in no spirit of mere fault-finding nor failure to respect authority that I take my first illustration from one who is above all qualified to speak officially for American philosophy, our president, Professor Alexander. When I read his paper on "Wrath and Ruth"² with a mental picture before me of the spirit in which a mathematician, physicist, biologist or scientific historian reads the announcement of a new discovery in his field, I find myself entirely outside of what Professor Alexander must regard as the standard of philosophic truth. I admire the fervid eloquence, but fail to find any evidence for the statement that the lesson of the war is that science and rationalism "are tokens of a wanton and degraded cult," *etc.* I can not even grant its novelty. The statement that "if philosophy has nothing to learn from the greatest event in the world's history, then so much the worse for philosophy," naturally suggests the following doubts: *Is the last war the greatest event in history? Yea, are we now in a position to decide that point?*³ Doubtless the last conflict exceeded all previous ones as regards the number of combatants, but is that the most significant philosophic test? Shall we say that the Wars of Napoleon are of greater significance than the discovery of the steam engine by Watt or of vaccination by Jenner? Again, why should a philosophy be any the worse because it has nothing to learn from the war? May we not maintain, on the contrary, that to the extent to which any philosophy found the war in conformity with its previous ideas of the capacity of human nature, that philosophy is so much the better?

The same failure to maintain a critical attitude seems to me exemplified in almost every page of Miss Follett's book on *The New State*, which the officers of our philosophical association have so generously welcomed as showing the way of the new social philosophy. I am not sure but that it may be entirely unfair to judge Miss Follett's book by philosophic standards. It is on the face of it a work of exhortation, pleading on behalf of what she regards as the solution to a practical problem. It is certainly not written in the style of the scientist or philosopher who expects every one of his statements to be critically questioned, but rather in the inspired style and absolute confidence of the prophet such as Buddah or Mohammed. But Miss Follet is fortunately with us in this discussion and can readily answer my skeptical difficulties.

² This JOURNAL, Vol. XVI., 1919, pp. 253-258.

³ A brilliant young philosopher of the school that loudly proclaims that consequences form the test of truth, begins an article on "Liberty and Reform" (this JOURNAL, XVI., p. 589) by saying that Bolshevism has "failed splendidly." Is not this rather prophecy?

On the merits of Miss Follett's claim to have found *the* solution of popular government I am not competent to pass—except that having lived long enough to see so many other solutions refuted I naturally wish to keep an open mind as to the practical outcome of this one. But as one who has dabbled somewhat in logic and scientific method I should be lacking in candor if I refrained from saying that the book appears to me strikingly deficient in cogent factual evidence or clear, convincing analyses of fundamental ideas. Thus Miss Follett assumes that political or ballot-box democracy has failed, but does not analyze the idea of failure or indicate any evidence that political democracy has failed more than our churches, our schools, our family life or our neighborhood organizations. There are doubtless many drawbacks to the ballot-box as an agency for the better life; but without any special competence in this field I can easily draw up a long list of great social achievements due to it. I think for instance that the exigencies of the ballot-box have made our political parties genuine agencies of Americanization (in the sense of teaching the various groups to cooperate). Just because every voter counts for one at the ballot-box, political parties can not afford to neglect any one, and many have asked my political cooperation who would not, because of my race or personal deficiencies, call on me for social or neighborhood purposes. Not only has Miss Follett failed to show convincingly that the balance of merits and demerits is against ballot-box democracy, but she has also failed to bring any really cogent evidence that her substitutes will work any better. Her substitutes are the organization of neighborhood groups and representation by industries. The social organization of neighborhoods may involve an element of tyranny which affrights one who knows the utter lack of personal freedom in small villages, but I can not pretend to pass any final judgment on it. How the principle of neighborhood organization really differs from the present much-berated principle of geographical representation, is not made very clear—except that Miss Follett like other reformers seems to suppose that the limitations of human nature, ignorance, jealousy, *etc.*, will not operate under her dispensation. Perhaps they will not. But how with our present imperfections can we attain her state of perfect cooperation? That representation by industries rather than by localities will have some great practical advantages seems to me *a priori* very likely, but it will also have obvious drawbacks, and I see no proof that its total effects will be much of an improvement over present conditions. No one who has had intimate knowledge of the working of our trade unions as well as of our political parties has as yet shown that bosses or oligarchic machines are any more absent in one than in the other. The analysis of human nature at the

basis of Miss Follett's proposal seems to me often to be directly contrary to observable fact. Thus when she says mere acquaintance "will inevitably lead to friendly feeling," I can merely retort that quarrels, enmities and jealousies do not always take place among total strangers; and when she says that there is no separate ego, I can only answer that while this may be true in the new psychology it is not true in a world where no two minds ever become completely at one, where we suffer alone the anguish of mortification or unrequited love, where the devout soul goes up alone to the mountain to pray, and where the pioneer mind alone catches the first glimpse of new scientific truth. Doubtless every mind is made what it is by interaction with others, but such interaction surely does not disprove the existence of the separate minds which do interact. A group is an aggregate of minds interacting in certain specific ways, as a number of people debating, cooperating in business, living in family relations, or forming a church, a state, a league of allies, or what not. But to speak, as many do nowadays, of the union or group as having a single mind is a convenient but dangerous metaphor. Apart from its questionable metaphysics, it hides the fact that what we call group action is and must often be the result not of the unanimous agreement of all the members of the group but only of a more or less limited part thereof.

II

A certain awe for the word *social* is one of the outstanding phenomena of current intellectual life. The triumphant elation and solace with which the social nature of man is announced and individualism denounced seems to presuppose the belief that previous generations were not aware of the fact that men live together. But long before the word *social* received its present vogue men reflected profoundly on the nature of family, economic, political and religious association. Plato's *Republic* and Aristotle's *Politics* bear testimony as to the vitality not only of their own but also of previous Greek thought in this field. But, though Plato draws a significant analogy between the individual and the body politic, he does not speak of a communal mind distinct from the minds of the individual philosophers. Nor is Aristotle responsible for the famous dictum, man is a social animal. He asserted, indeed, that man is a political animal, but he expressly maintained that man's highest achievements are those rare moments of real insight which are also moments of divine isolation. Nor will any one acquainted with the long history of Hebrew and Christian thought as to the nature of Church and State and the relation of the individual soul to God, be inclined to view the current glib contrast between the social and the

individual as the first and final revelation of the truth in the matter. The recent rise of the term social psychology may have lent some color to a general impression that now at last we have discovered a real social mind distinct from the individual minds of men and women. But surely no scientific psychologist who studies the behavior of men in groups makes any such claim.⁴

The doctrine of a real communal soul in the form of a Folk Ghost⁵ (*Volksg Geist*) seems first to have received prominence in the romantic reaction against the French Revolution and the doctrines of the Enlightenment as to the rights and powers of reasonable man. Against the doctrine that we can make laws on the basis of reason or *a priori* principles, Savigny and his disciples urged that the laws of any community are and should be the historic product of the national ghost of its people. But while Savigny and his romanist disciples attributed a real ghost only to the State, the Germanist Beseler and his disciple Gierke extended it to other associations—though not, be it noted, to all business associations. Gierke's theory has been introduced into Anglo-American thought mainly by the brilliant work of Maitland and Figgis and is now represented here by Mr. Laski.⁶

It would take us far afield to attempt here an adequate account of the enormous literature that has grown up around the question as to whether the legal personality of associations denote something real or fictional.⁷ As the controversy has for the most part been carried on by jurists and historians and not by philosophers it is full of arguments as to the practical consequences of different theories, but naturally rather deficient in clear analysis of the philosophical principles involved. We may, indeed, eliminate most of the legal considerations by observing that legal personality is quite distinct from natural personality. There are natural persons who for some reason or other do not possess legal personality at all, *e. g.*, slaves. That does not mean that the law denies the fact that these

⁴ Wundt is sometimes referred to as an exponent of this view (Gierke, *Wesen der menschlichen Verbände*, p. 11) but he in fact maintains that no actual *Gesamtgeist* exists apart from and independent of individual minds—*System der Philosophie* (1889) pp. 592 ff. Durkheim and his disciples, also, while insisting on the tremendous importance of group life in the constitution of the individual, still maintain that society exists only in and through individual minds. *Elementary Forms of Religious Life*, pp. 17, 221, 346.

⁵ I am aware of the fact that spirit rather than ghost is the usual translation of *geist*. But I think the notion of a substantial spirit which is also a person is best represented by the word ghost.

⁶ Maitland, *Introduction to Gierke's Medieval Political Theories*; also *Collected Papers*, Vol. 3. Figgis, *Churches in the Modern State*. Laski, "The Personality of Associations," in *Harvard Law Review*, 1916.

⁷ See Saleilles, *Personalité Juridique*, p. 1; also Enneccerus, *Lehrbuch d. bürgerliches Recht*, § 96.

natural persons have organs, dimensions, feelings, *etc.* To paraphrase the words of a famous beadle, if the law did that it would indeed be an ass. On the contrary most legal systems that allow slavery recognize the natural personality of the slaves to some extent and may even protect it by diverse rules and regulations, while denying them legal personality or the right to sue in their own names. Perhaps the distinction between legal and natural personality may be seen even more clearly when we observe that some natural persons like infants and women are legal persons for certain purposes and not so for other purposes, while legal personality may be bestowed to certain funds (the fisc) and foundations to which no one has yet attributed real personality. Whether, therefore, certain groups should be regarded as legal persons, is a practical question as to whether they should be made collectively the subject of certain rights and duties, and whether their liability should be limited to the extent of the corporate or collective funds. But the fact that our legal system draws a sharp distinction between the property of the corporation and that of the individual members or owners of it, does not determine the question of the real personality of the corporation, any more than the fact that certain proceedings are brought against the ship and not its owners determines the question as to whether a ship is a person.

Let us then examine the question as to the personality of groups as a question of fact. When we take a unified nation like France or an established church like the Roman Catholic, or a society like the Jesuit Order, there seems a clear *prima facie* case for saying that not only are there Frenchmen *etc.*, but over and above these there is the spirit or ghost of France, of the Roman Church, or of the Society of Jesus, which endures while individual men come and go. Omitting the supernatural claims of the Catholic Church and viewing the matter from the naturalistic point of view it seems quite clear that this contention for real group personality may be regarded either as true or false according to the meaning we attach to the word personality. If we mean to assert that every group has distinctive group marks and that there is something uniting the different individuals so that they act differently than they would if they were not so interdependent, no one can well deny such reality, whether you call it personality or give it any other name. But if it is asserted that the French nation and the Roman Church literally have all the characteristics of those we ordinarily call persons—that the state is masculine and the church feminine, according to Bluntschli—we are dealing with the kind of a statement which is believed because it is absurd. Groups are not begot through the union of father and mother, they do not suck their mother's

milk, do not play children's games, do not spend weary hours in school, do not work for wages, strike for shorter hours, and do not suffer the trials and joys of anxious parenthood. Having no sense organs, they can not in any strict sense of the word be said to have sensations or feelings, and it is not literally true to say that they feel praise or blame, hope or disappointment, love, hunger, colds, tooth-aches, ennui, the creaking of old age, or the perplexities of a world that to the honest mind must always contain unsolved and perhaps insoluble problems.

The defenders of the real personality of groups, like Gierke and Laski, distinguish, of course, between the personality of groups and the personality of natural persons. The two kinds of personality, they admit, are different and are called by the same name only because there are real analogies between them. By stretching the term personality beyond what it ordinarily denotes, they really change its meaning or connotation, precisely as the mathematician has stretched the term number by applying it to surds or "real numbers" which are not numbers at all. This tempts us to conclude that the quarrel between those who believe in the reality of corporate personality and those who believe it is fictional is a quarrel over words. For the most distinguished adherent of the fiction theory, Jhering, has pointed out⁸ that this use of the language of identity for two different things that are in some way analogous is precisely what constitutes the nature of fiction. But though it is true that a good deal of the controversy would be eliminated if each side defined accurately the meaning it attached to the term personality, it would be a mistake to conclude that the issue is merely verbal and of no real significance. In the first place no question of this sort can be *merely* verbal, because words are most potent influences in determining thought as well as action. Theoretically we may be free to decide to use a word like personality in any sense we choose, but practically we must recognize that intellectual resolutions can not rob words of their old flavor or of the penumbra of meanings which they carry along with them in ordinary intercourse. The attempt therefore to use old popular words in new senses is always productive of intellectual confusion. Thus when we personalize a group we are apt to forget that "its" action may be simply the action of certain individuals in authority—the others, though they may be also responsible, being in fact passive or even ignorant of what has taken place. This confusion seems to me to show itself in Mr. Laski's contention that a corporation (as a mind distinct from that of its officers or members) can have the feeling of gratitude (or perhaps even the capacity to eat dinners).⁹

⁸ *Geist d. römisches Recht*, § 68.

⁹ *Harvard Law Review*, 1916, p. 483.

Apart, however, from the practical question of stretching words to include unusual meaning and thus confusing our intellectual currency, there is between the adherents of corporate personality and their opponents a fundamental philosophic issue: the extent to which the principle of unity should be hypostatized or reified (I wish the use of the word *thingified* were more common, since that which it denotes, the tendency to think of relations and operations as *things*, is one of the most common sources of philosophic error). All are agreed that groups are characterized by some kind of unity, and the fundamental issue is whether this unity shall be viewed as an entity additional to the entities unified and of the same kind, or whether it shall be viewed for what it is, as just the unifying relation. The tendency to personify groups, ships, storms, debates, and everything else is as old as human thought and is in some measure unavoidable. For we must always depend on analogies, and personal analogies give our language a vividness without which our hearers may be entirely unmoved. But modern mathematical logic has taught us to avoid the old form of the issue between nominalism and (the older) realism by recognizing the relational character of unity, or at any rate to recognize the different types of unity. When any one oracularly informs us that the whole is more than the sum of its parts, we reply that that depends upon the meaning of the word *sum*. Of the things that can in any definable sense be added the whole is just the *sum* of its parts and nothing else. There are, however, at least three recognizable types of unity. There is the physical or synthetic unity of a house or ship in which the constituting parts which existed before the whole are still recognizable. There are chemical unions in which the pre-existing parts lose their identity in the whole, but may be restored to their original state. Lastly, we have the organism or biologic unity, which we can not freely create out of preexisting parts nor break up into parts such that the whole can be reconstituted. Now diverse human associations are characterized by all these types of unity in diverse ways. To the extent that our membership in certain racial, religious, national, or language groups, is not a voluntary act, these groups have something of organic unity. But to the extent that increasing civilization increases the freedom of associations, men can and do choose their language, country, religion and the intimate associations that give social importance to race. The most intimate union in human life is that of husband and wife. By that union the character of the constituent parts is profoundly modified, but they maintain their separate identities. The union may be dissolved and in certain legal respects the parties may return to the position in which they were before forming their

union, though in other respects they can never by the same and possibly can never reconstitute the same happy family. Gierke, Figgis, and other protagonists of corporate personality are, however, too much in reaction against social contract theories to think highly of voluntary and possibly dissolvable unions. They think more highly of states and churches into which individuals are born, and in which they necessarily inhere as qualities inhere in a substance. The state or the church is the permanent reality of which individuals are the phenomenal appearances. Gierke, who has become a sort of patron saint of political pluralists, goes to the greatest extremes in this hypostatizing of the principle of unity.¹⁰ But the history of philosophy from Aristotle to Bradley has fully shown the vicious infinite regress which follows when our substance becomes an additional quality, or when our unifying reality becomes an additional thing. When two persons are united in the marriage relation the unity is not in itself an additional person, though such unity makes possible many things which could not otherwise happen.

The reaction against social-contract theories has led to absurd denial of the voluntary element which plays a part in all associations even in that of the state. History, United States history especially, shows many examples of voluntary formations of states; and recent events show that such unions may also break up and new ones be reconstituted. The unity of France or of the Catholic Church rests in the mode of thought and action which millions of Frenchmen and Catholics habitually follow. If by an impossible event they should all simultaneously lose all memory and habitual manner of responding, the French nation and the Catholic Church would cease to exist. Every group involves some definite mode of interaction between its members. The more permanent the grouping the more permanent are these modes of action. When we become conscious of these ancient modes we call them traditions. But these traditions, though embodied in many material things, books, works of art, clothes, buildings, machines, *etc.*, can not maintain their significant character apart from a continuous current of individual minds.

Professor Dicey¹¹ seems to have put his finger on the chief difficulty which, in the absence of the relational formula for which I have been contending, meets those who ask: what more does a corporation involve than individual members? He says: "Whenever men act in concert for a common purpose, they tend to create a body which, from no fiction of law but from the very nature of things, differs from the individuals of whom it is composed." But when two oxen are yoked together they not merely tend to but do create a

¹⁰ See his *Genossenschaftsrecht*, Vol. III.

¹¹ *Law and Public Opinion, etc.*, p. 165.

body, to wit, a team, which "from no fiction of the law but from the very nature of things differs from the individuals of whom it is composed," for a team of oxen can really do things which two oxen separately can not. But that does not prove that a new ox is thereby created. Similarly when Jones and his two brothers form the Equitable Button Co., Incorporated, they do not create an additional soul or mind. If the Equitable Button Co. prospers we speak of "its" reputation, "its" assets, liabilities, *etc.* But that does not mean that there is "the red blood of living personality" in the corporation apart from the human individuals who are its owners. The same is true when people unite to form a debating club, a dining club, a church, a railway company, a bank, or an incorporated town.

III

The question of fact as to corporate personality is independent of the legal or ethical question of corporate responsibility. But as the discussion of personality is frequently confused by consideration as to responsibility we must consider the latter topic also.

If the impecunious agent of a corporation does a wrong, justice may demand that the stockholders on whose behalf it was done or who generally profit by such acts, should be compelled to pay for the wrong out of corporate funds. This is in line with the general principle of making the master liable for the torts of the servant; but it does not prove that the corporation is a real mind separate from the minds of the individual officers and stockholders. But the question of corporate responsibility becomes more complicated and in itself more significant when we come to the responsibility of nations or states.

Who, for instance, is rightly responsible for the damage done to Belgium by Germany? Not the Kaiser alone, nor his immediate advisers, nor the members of the Reichstag who voted supplies, nor even all the citizens who supported the war. Germany as a whole is held responsible and that means that those who opposed the war as well as generations of Germans yet unborn must be made to pay. This certainly does not agree with the prevailing theory that no one should be punished except for some fault of his own. But most people believe both in individual and in collective responsibility—certainly German publicists are in no position to question the latter, since at the time of the Serbian invasion they justified the cruel sufferings imposed on innocent individual Serbians on the ground that the Serbian people must atone for the crime of the Karageorgevich dynasty.

In the presence of the obvious conflict between the principle of individual responsibility and that of collective responsibility, the phi-

losopher is tempted to decide for one or the other of these principles. But humanity continues to profess both and to disregard both whenever necessary. Thus many tens of thousands of people are killed every year by what are called accidents in our mines, railways, factories, *etc.*, and no one feels responsible. Most of these accidents could certainly have been prevented if people were willing to pay the cost of such prevention. If I tell my neighbor that the coal he uses is soaked with the blood of miners and brakemen killed in the mines and in the transportation service, he may see the truth of my contention, but he would resent my statement that by using coal he is participating in these killings and that the blood of these men is upon his head. In any case he will go on using coal; and in this respect I think the children of the world are wiser than (some of) the children of (reflective) light. For more harm may result by giving up the use of coal, railways, and factory products than now results from their use. King David refused to drink the water brought to him by his heroes from the well of Bethlehem at the price of blood. But many of us live in cities where the entire water supply is tainted with the blood of the toilers killed in building the tunnels and aqueducts. Does any morality require us to refrain from drinking it? Are not the portals of our houses sprinkled with the blood of our sons who bled to death that we may be safe? We call it a sacrifice on our part when we remember the ties which bound the dead to us. But when we ignore the ties which bind members of a community together, we are quite certain that we have no right to order people to be killed in order to prolong *our* lives.

These reflections suggest that in the face of the complicated situation before us we can not unqualifiedly accept either the principle of individual or of collective responsibility, nor absolutely deny either. In our ethics the principle of individual responsibility, that each man shall be rewarded or punished according to his own deed, has been unquestioned. But in practise it is almost universally disregarded, because inapplicable. It is impossible to isolate, in a complicated system of interaction between countless individuals, past and present, the part of the result due to any individual deed. The principle of individual responsibility postulates a world in which each individual can be the sole producer of definite results, a world where each individual can be the sole master of his acts and fate. This, I submit in all seriousness, is not the world in which we find ourselves. We find ourselves in a world where, not to speak of our involuntary physical heredity and early training, we are all in different measures benefited or harmed by the acts of others, and where no man can act or be punished without affecting untold others in diverse ways.

But while the principle of individual responsibility has remarkably little to commend it as a primary principle, it is none the less useful as a secondary one. In a world where individual fears, hopes, and ambitions are real sources of action, general carefulness and increased productivity can certainly not be promoted by disregarding entirely these individual emotions. Some rationalized system of individual rewards and punishments is, therefore, necessary to weigh the natural consequences of action in such a way as to bring about more desirable results. Nor is it difficult to resolve any collective responsibility into a complex of personal responsibility. The responsibility of the community for an undue number of railway accidents is a complex of the responsibilities of railway commissioners, governors or presidents who appoint them, voters and politicians who elect these officials, railway managers, their directors, shareholders, bankers, *etc.* The national debt of Great Britain is not the debt of his Majesty (though the treasury, the army and the navy are his), nor of the Cabinet, nor of the members of Parliament, nor even of the total present population of Great Britain. It is not the debt of a National Spirit or Ghost, but rather a complex of obligations on the part of certain officers to pay money out of certain funds to be obtained in diverse ways from a now indefinite number of Britishers past, present and future. Nor is it shocking to the general sense of mankind that future generations shall pay for our mistakes, or that they shall, without any struggle on their part, benefit by our efforts or good fortune. An absolutely strict debit and credit account between the members of a general community is neither possible nor desirable.

If collective responsibility is thus viewed not as rigidly binding principle, but as a social necessity, we can see why our elementary sense of justice is not shocked when it is claimed that a country should pay the debt which a despotic ruler contracted, and the proceeds of which he squandered. As between the members of his country and those who stand in the place of the lenders, there may be many reasons for apportioning the loss on the former. But as we are dealing with a general maxim rather than with a rigid principle difficult cases are sure to arise. Thus I think there is a great deal of justice in the refusal of the Russian Revolutionary government of 1918 to pay the debt contracted by the late Czar in 1906 in his effort to suppress the opposition which arose because he revoked the people's constitutional rights—especially as the revolutionists at the time warned the European financiers. But while the leaders of Revolutionary Russia might be within their rights in refusing to pay such a debt, they might thus wrong the Russian people by cutting off their

credit and, in consequence, necessary means of sustenance. Thus must principles lose their rigidity in the actual storms of experience.

IV

I do not wish to leave the theory of communal minds or ghosts without paying a tribute of respect for the recent impressive movement of political pluralism represented by guild socialism, the ecclesiasticism of Mr. Figgis, the syndicalism of Mr. Benoist or M. Duguit, and the plural sovereignty theory of Mr. Laski. These theories have shaken political philosophy out of its torpid or somnambulant worship of the omnipotent State as the god on earth. They are peculiarly timely in so far as they attack the theory of an omnicomponent state at a time when the state has actually shown itself to be the strongest power on earth, much stronger in its power to dispose of life and substance than church, economic union or the ties of language and race. The newer political philosophy has already rendered a great service in pressing the need for decentralizing our vast modern states, many of which have populations much larger than that of the Roman Empire at its height. Nothing can be more inimical to the human sense of power than for the individual voter to feel that after all he can accomplish very little politically since it is necessary to move millions before the action of the state can be modified. Large unified states undoubtedly tend to produce an oppressive uniformity that is profoundly inimical to the development of distinctive individuality. The spiritual need of local loyalties to offset this danger has been expressed by no one better than by Josiah Royce, whose later philosophy might be called a spiritual reflex of American federalism.

Nevertheless it seems clear that political pluralism is open to serious practical and theoretical objections. The partisans of pluralistic sovereignty ignore or minimize two dangers which human experience has shown to be very grave.

The first danger is that small groups or communities may be far more oppressive to the individual than larger ones. Men are in many ways freer in large cities than in small villages. Indeed it is precisely because of the intolerable oppression by local and guild sovereignties in medieval society that the modern national state was able to replace it. It is because the kings' courts were able to deal out what was on the whole better justice that they were gradually able to replace the local and vocational courts. The fact that our trade unions or southern states do not have absolute sovereignty in their own realms and that there is a possible appeal from their acts to the law of the land, certainly prevents them from oppressing some of their members more than they do. At any rate, the distinctive

note of modern social and political philosophy (before the romantic and Hegelian reaction) is to be found in the long struggle to free the individual by means of natural rights from the claims of groups; and while it is doubtless true that individualistic, natural-rights theories have overestimated the powers and opportunities of the individual detached from some group, it would be hazardous to claim that the whole work of modern philosophy was unnecessary.

The second danger is that if the state gives up its sovereignty over any group there will be nothing to prevent that group from oppressing the rest of the community. I notice that one of our leading periodicals that thinks we must give up the notion of popular sovereignty in the same way as we have given up the notion of the sovereignty of kings, rejects the logical consequences of this position in the face of a strike by policemen. Policemen like other individuals are entitled to just treatment by the employing state, but no community can allow policemen or any other group to paralyze its whole life. We may try to set a line dividing the internal affairs of a church or trade union from those of its activities which affect the public at large, and contend vigorously that under no circumstances should the state as the organ of the larger community meddle in the internal affairs of the smaller society. But apart from the practical impossibility of drawing in advance any such line between the actions which do and those which do not affect the public at large,¹² this attempt really breaks down the whole theory of plural sovereignty, since in the last analysis some one will have the last word as to where that line is to be drawn, and it is logically impossible where groups conflict that each shall draw the line. To prevent the inconvenience of interminable conflicts, the power to terminate them by a deciding word is given to the state as the organ of the general community. The power to have the last word in any dispute is just what sovereignty is. The wisdom of large measures of home rule or autonomy to be accorded to various local, vocational, and religious organizations, need not be questioned. But we must recognize that the community can not irrevocably part with its power to revise such grants and that it is impossible for all the parties to a dispute to have the last word. Mr. Figgis, for instance, sets up the right of the church in matters of conscience as absolute against the state. Taken literally, as applied to individuals, the absolute right of free conscience would make all human organization impossible, since past experience has shown that there is no social institution, from property and marriage to the wearing of shoes, buttons, or the cooking of one's food, against which some individual conscience has not rebelled. While the greatest freedom in this respect is desir-

¹² Every rule affecting a member of a union also affects a citizen.

able, the state can not give up its reserve rights to limit any form of conscience which it deems a nuisance. Nor is the matter much improved if, instead of individual conscience, we substitute the organized conscience of established churches. The churches in the South believed in slavery, but those in the North believed it to be iniquitous. The Mormons believe in polygamy as a divinely ordained institution, while others believe it to be adulterous. The Catholic Church believes in the use of images or icons, and another sect believes in the duty of breaking such images. If all of these are to live in the same community, somebody's right of conscience must necessarily yield. The matter is still more clear if, as in Mr. Laski's theory, we should attempt to bestow absolute sovereignty not only on churches, but also on trade unions and other groups. The evils of an absolute state are not cured by the multiplication of absolutes.

V

These fragmentary and perhaps impertinent considerations do not pretend to throw much light on the nature of the community. But I hope they may help to make our discussion more cautious and critical. But most anxious of all am I to challenge two modes of argument which seem to me particularly vicious when used in social philosophy. These are the too facile antithesis of first principles and the too facile reconciliation of incompatible alternatives.

The first mode is illustrated when we argue that political democracy, nominalism, individualism, or monism has broken down, and hence we must believe in industrial democracy, realism, collectivism or pluralism. The facts of social life are clearly too complicated to allow such broad simple principles to be directly proved, nor can either set of principles be categorically refuted. Difficulties *ad libitum* may be raised on both sides. In this connection I should like to call attention to the admirable procedure exemplified in Dean Pound's treatment of the Interests of Personality.¹³ The individual interests worked out by the individualistic philosophy of natural rights are all restated in terms of social interests, but there is no pretended refutation of the older philosophy. Indeed, though Dean Pound's method has distinct technical advantages over the older method, it does not preclude the possibility of any one working out a complete theory of public and social interests on the basis of the individual rights or interests of personality. We can draw more than one true picture of the social world, provided we do not claim that our picture is *the* true one.

The second mode of argumentation against which I wish to raise

¹³ *Harvard Law Review*, 1915.

a warning voice has not in these warlike days as yet made itself felt in our attempts at social philosophy. But it has vitiated our metaphysics and, as under the name of the organic point of view it still holds sway, we must be on our guard against it. Thus to dismiss the conflict between mechanism and purposive action, as a recent writer does, on the ground that both are false abstractions, seems to me an arrogant shirking of a real problem, which may be all the more tempting and more dangerous in social philosophy. Social problems are generally difficulties which arise because we do not know how to attain what we want without also having something which we do not want. We want, for example, complete freedom of the press, but we do not like to see wicked people poisoning the sources of public information. The solution is obviously not some banality like liberty without license or other cheap evasion of a real difficulty. The social interests in freedom and in truth are not logically contradictory, but they are in fact incompatible in a world where many things are subjects of opinion. And this incompatibility is not to be removed by dialectic manipulation of principles, but by some specific invention similar to the invention of boats, which solved the problem how to get across the river without getting wet. In the infancy of science there may have been some excuse for philosophy to be associated with the search for magical formulæ and panaceas; but now it seems time for philosophy to accept the division of labor and learn the vanity of trying to solve everybody else's problems.

A recent writer, zealous for social philosophy, and for the gratuitous assumption that the philosopher is called upon to be the leader of the community in questions of statesmanship, speaks contemptuously of "epistemologic chess."¹⁴ I am far from condoning the grievous sins of epistemology, but I think the implied condemnation of the play instinct in philosophy a much more grievous error. The history of philosophy and pure science will show, I think, that there never was a man who made a great discovery in the realm of ideas who did not keenly enjoy the play of ideas for its own sake. But in intellectual as in other play, we must follow the rules, and one of the primary rules of the intellectual game is that ideas must submit to the most rigorous criticism and to the test of fact. Therefore, to rush into social generalization without making sure of the consistency of our ideas or their adequacy to meet the ocean of complicated fact is much worse than epistemologic chess. The least that the community can expect of us is that its toil and suffering shall not be made the subject of pompous frivolity.

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¹⁴ This JOURNAL, XVI. (1919), p. 576.

ANTHROPOLOGY AND HISTORY

THERE are many intimations at the present time of a growing consciousness that "as man is an unit, all the studies which bear upon him and explain him must be kept together and their results harmonized." Opinion varies widely, however, as to how this coordination may be brought about. The followers of Auguste Comte, for example, still continue in the belief that permanent relations between sciences may be established by the logical delimitation of their respective frontiers, and the acceptance of the paramount authority of a general science to which Comte gave the name of "Sociology." Another view is expressed by Professor Percy Gardner. "If the question be asked," he says, "how these studies [of man] may be organized, the answer seems to be that as they develop they will organize themselves, and each branch of the tree find its due place." It does not seem to me that either of these modes of procedure is calculated to bring about the end desired, for cooperation between investigators in different fields can be obtained only through the recognition of a common aim and purpose. Certainly Comte's hierarchical method has not unified humanistic studies; while the method of leaving each group of scholars to pursue its own way ignores the fact that the different studies of man, as at present constituted, display strange cleavages, due primarily to the historical circumstances of their emergence, which militate against the possibility of a scientific treatment of their subject-matter.

The unfortunate character of these fortuitous cleavages is nowhere more fully illustrated than in the arbitrary division between anthropology and history. Roughly speaking, anthropology and history are studies devoted respectively to the investigation of the activities of "non-civilized" and "civilized" human groups; and while it is perfectly true that this division represents a difference in the technique required on the part of the investigator, it is also true that the longitudinal bisection thus created constitutes a fundamental obstacle to the study of man as a unit, and hence to the development of a Science of Man.

That a scientific approach to the study of man is an imperative need at the present time is sufficiently obvious. The view I am now concerned to express is that this scientific foundation can only be constructed by full and free cooperation between the studies somewhat vaguely designated anthropology and history, that is, by their joint recognition of a common aim.

To justify this contention, it is necessary to take cognizance of the content and method of the two subjects. First, then, while the

word "anthropology" is used in a variety of senses, I shall not be misunderstood if I say that the anthropologist is interested in the entire range of the activities characteristic of such groups as are not included in the type of civilization which is distinctive of modern Europeans. On the other hand, the historian may be said to concern himself with these modernized peoples exclusively.

The criticism will, in all probability, suggest itself at once that the historian deals only with certain aspects of the life of these particular groups. The word "history" carries with it, in ordinary usage, the suggestion of a restriction of content to what we speak of as "political" happenings or events. Certainly the typical "history" is limited in this respect, and unquestionably the prime interest of the historian is in political matters and affairs. Nevertheless, there has long been apparent a tendency on the part of historical scholars to transgress this narrow boundary, and to extend their inquiries to the religious, artistic, industrial, and social activities of Europeans. So while the historiographer or writer of histories holds to the established tradition, the historical investigator may be said to have arrived, however slowly, at the breadth of view that distinguishes the anthropologist. We may take it for granted, therefore, that anthropology and history concern themselves with the entire range of human activities in the groups with which they respectively deal.

A second difference between the two subjects should be observed. The typical form in which the anthropologist states his results is that of a detailed description of the characteristics of a particular group. Quite otherwise, the aim of the historian is the presentation of a narrative embodying what he personally regards as the significant or important events in the career of a particular nation. Narrative is the distinguishing feature of history; and it is the conception of history as being narrative that stands primarily in the way of the historical investigator adopting a scientific attitude towards his subject. The historian hesitates to break with an ancient convention, and finds difficulty in bringing himself to accept an entirely new form of statement. Narrative is, however, a literary form, and its success depends not upon the care with which the details have been investigated, but upon the general ideas by which it is informed, its dramatic construction, and the depiction of character. The historical investigator, on the other hand, ignores these aspects of historical writing, and, putting aside all questions of scientific method, takes the stand that his work "has to be done in faith—in the faith that a complete assemblage of the smallest facts of human history will tell in the end." He is, in fact, in the position of asserting that

his neglect of scientific method is a self-denying ordinance, and, to all appearance, assumes that his transference of the burden of facing a difficult situation to some "remote posterity" is to be accounted a conspicuous virtue. While, then, the historian, properly so called, is a literary artist, the historical investigator is content to assemble materials for the use of some future inquirer whose needs he is wholly unable to foretell.

While this criticism of the work of the historical student is a mere statement of obvious facts, it may not be so readily conceded that the work of the anthropologist is in the same predicament. Nevertheless, the anthropologist, in the preparation of his descriptive monograph on this or that group, is actuated primarily by the idea that the most important thing to be done is to collect detailed information, and he would seem to agree with the historical investigator that the broader problems may very well be left to future generations. Meanwhile, as among historians, fashions change in regard to what should be observed, and no one investigator is altogether satisfied with the technical work of any other. It seems, then, that while there is a clearly-cut distinction to be made between the subject-matter of anthropology and that of history, and while there is a wide difference to be noticed in the literary form assumed by the typical statement of results in the one study and the other, the fundamental methodological position of the two is identical.

There is a further distinction between anthropology and history which may have suggested itself in connection with what has just been said. This may be stated in the form that the anthropologist is interested mainly in the activities of living human beings, whereas the historian comes very near the point of priding himself upon his complete detachment from any present-day concerns. It is true that the anthropologist takes into consideration the effect of past events, let us say migrations, upon the present condition of the group he is investigating; and it is true that the historian occasionally carries his narrative down to some point within the memory of living men, but in the main the case remains as stated. To all appearance, therefore, the subject-matter investigated in each case is distinct. This separation becomes less marked, however, when we consider that the anthropologist and the historian alike are dealing with the activities of men who are not their own contemporaries, with men who are removed from them by innumerable differences in thought and action. In each case, moreover, the investigator is actuated, it may be insensibly, by the desire to interpret the peculiarities of the modern savage or the ancient Egyptian in terms of modern life, to assimilate their idiosyncrasies to our own ways of

thinking. So, through all the work of the anthropologist and the historian there runs an imaginative construction of the data recorded, which is in large measure unconscious.

Now, science does not strive to eliminate the imagination, but to bring the part it plays into full consciousness. In all scientific work the imagination is utilized, but it is also limited by being brought into the focus of attention. In science, the imagination is made to serve a purpose. This purpose, it may be said, is not the construction of such sweeping views as characterize, for example, philosophies of history, in which the author seeks to display the meaning of the whole sequence of events in past time. Nor is this purpose the assemblage of even the widest series of observations made by an individual or an expedition on the mode of living and thinking of a particular human group.

The service of the imagination in scientific work may be stated, in the first place, as the perception or devising of general problems for investigation. If we examine the histories of such sciences as astronomy, geology, and biology, during the last century, it will be to find that the modern period in each field has been ushered in by the recognition of the far-reaching importance of one particular problem, namely, "How have things come to be as they are?" It was this question that stimulated such widely different minds as Laplace, Hutton, and Darwin. To each of these men, there presented itself a complicated series of facts: the universe of the stars, the stratification of the earth's crust, the unending diversity of the forms of life. Previously, innumerable attempts had been made to explain these phenomena by theories directed principally to defining the use or end for which these things had been created. In each case, however, an entirely new spirit becomes manifest when once the new question has been propounded, and when a method by which it might be answered has been arrived at.

Briefly, the method of science is analysis, but it is analysis directed to a particular end, and that end, in the relation I am now discussing, is the determination of the processes through which things have come to be as they are. Long before the pronouncement of the nebular hypotheses or of the theory of natural selection, it had been recognized that the universe in which we live is "orderly;" that, notwithstanding the particularity or individuality of every object and happening, neither objects nor happenings are uncontrolled in their constitution or occurrence. At an earlier period, this "orderliness" was attributed to the will of God; in the eighteenth century, it was held to be due to the operation of immutable "laws" of Nature; but to-day we merely hope to be able to detect in the phenomena the manifestations of definable processes.

It remains, therefore, for us, if we would place the Study of Man upon a scientific footing, to take advantage of the experience of the sciences of astronomy, geology, and biology. Following their example, what is required of us is to set up the question: "How has man everywhere throughout the world to-day come to be as he is?" The answer desired will take the form of a description of the relatively constant processes through which the existing situation has been brought about.

To take advantage of this experience does not imply, however, the adoption of the mode of procedure of the one or the other as a model. Indeed, the careful examination of what another man has done should lead one to see how his efforts might be improved upon. Thus, to take an example, Darwin was no methodologist; and there is at least one better model to be found for the scientific study of how man has come to be as he is than that exhibited in the *Origin of Species* or the *Descent of Man*. In fact, before these very notable books had been published, a wholly different scheme for what we may speak of as the study of an evolution had been formulated by the students of the history of language. Briefly, the difference is this, that Darwin sought for a formula which would describe what he thought was the one process through which the successive new forms of life had come into existence, whereas the founders of the science of language had already perceived that there were at least three different sets of processes to be described if we would know how the languages now spoken on the earth had reached their present status. So, without putting these categories in a strictly systematic form, the students of language had recognized: (1) processes which tend to the maintenance of any language in its existing state; (2) processes through which every language is continuously but slowly modified; (3) processes through which certain languages have been radically changed as a result of historical events in the past.¹ The complexity here suggested is very different from the simplicity of Darwin's theory of natural selection, but this very complexity, when once recognized, simplifies the approach to the infinitely important problem presented by the question: "How has man come to be as he is?"

It should now be apparent why I began by saying that the scientific study of man would require the full and free cooperation of the subjects designated anthropology and history. The complexity of modern life is so great that in considering it alone we tend to lose ourselves in the maze of detail, and become confused by the personal interest attaching to the deeds of famous men. But the

¹ For further discussion on this point see the author's *The Process of History*, New Haven, 1918.

matter at issue is not merely the difficulty of handling great masses of materials; we can not assume that the processes through which man has come to be as he is are to be determined by any investigation, however detailed, of European man alone. If, however, we can determine the processes through which the "lowest" groups now existing have come to remain as they are, it should be possible to verify the operation of these processes in "higher" groups, though possibly in a less accentuated degree. On the other hand, we would not look at once to the "lowest" groups to ascertain the processes which have resulted in marked advancement, but for this inquiry we have the written records of the peoples of Europe and Asia.

Obviously, these inquiries can not well be carried out by anthropologists alone; but history can, I think, claim to contribute something of unique value to the investigation. So far as I can see, the rock on which the ship of natural selection has come to grief consists in the fact that the biological investigator is left without the guidance of actual historical dates. Suppose the biologist should be able to demonstrate that certain new species have arisen, under observation, by a process of slow gradual modification, this would not prove that existing species had so arisen in the past. Nothing short of actual historical evidence, setting forth times and places, can prove beyond question how species have arisen. Now, it is only in human history that this convincing type of evidence is forthcoming. It is only in regard to man that we are in a position to show positively the relation of advancement to specific happenings. Hence it is that the records of the historian offer a unique contribution to the investigation of the processes of human differentiation.

We have all heard it said, times without number, that the greatest intellectual achievement of the nineteenth century was Darwin's discovery of the mode by which new forms of life had come into existence; and we have heard it said that this discovery has brought in its train untold blessings to men through the stimulus it has provided in biological and medical inquiries. I am very deeply convinced that any group of anthropologists and historians working in cooperation might speedily arrive at results, in the determination of how man has come to be as he is, that would constitute an achievement in no way second to that of Darwin, and which would to at least an equal degree benefit mankind. The present turmoil in the affairs of men calls urgently for guidance that can only be achieved through the painstaking development of a scientific Study of Man.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Stanford Revision and Extension of the Binet-Simon Scale for Measuring Intelligence. L. M. TERMAN and others. Baltimore: Warwick and York. 1917. Pp. 179.

In 1916 the Stanford Revision and Extension of the Binet-Simon Scale was published, together with a guide for its use, under the title, *The Measurement of Intelligence*. The present book is an explanation of how the scale was constructed, with reasons for the same, and also a discussion of its reliability. The scale is based on tests on about 1,000 unselected children.

One of the most important discussions concerns the method of reckoning the amount of deviation from normal intelligence. In the Binet scale it was reckoned in years. Terman shows that this is incorrect, because the rate of mental growth slows down with age, and a defect of two years at twelve is equal to one year at six years. Evidence is given to prove that the rate of growth is such that the intelligence quotient, that is, the child's mental age divided by his chronological age, is the proper method of calculating mental deviation.

Another vital question is the extent of the dependence of mental age on the social environment. Terman agrees with most previous investigators that children of good social environment test higher than those of poor environment, but thinks heredity is the major cause. If environmental influence is a major cause, the correlation between social status and mental age should increase with age, whereas the fact is that it decreases in his results.

Mental age and success in school work are compared. The correlation here is .45. Children of the same mental age are found to be rather widely scattered through the grades. The efforts of school grading to secure homogeneous groups have not been successful, and a greater use of mental tests as a basis for grading is to be inferred. Teachers are too much inclined to promote by age, to overestimate the intelligence of older, retarded children, and to underestimate that of the younger, advanced children. On the whole the book is decidedly useful to those who have testing of children to do, and want to acquire a thorough knowledge of the merits of the Stanford Revision.

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John Dewey's Logical Theory. DELTON THOMAS HOWARD. (Cornell Studies in Philosophy, No. 11.) New York: Longmans, Green and Company. 1918. Pp. iv + 135.

This work is, in the words of the author, "an historical treatment of Professor Dewey's logical theories, . . . a critical review of Professor Dewey's writings in their historical order" (p. iii). The contents may be sufficiently indicated by the chapter headings: I. "Psychology as Philosophic Method;" II. "The Development of the Psychological Standpoint;" III. "Moral Theory and Practice;" IV. "Functional Psychology;" V. "The Evolutionary Standpoint;" VI. "Studies in Logical Theory;" VII. "The Polemical Period;" VIII. "Later Developments;" IX. "Conclusions."

The book is not very profitable for one to read who is seeking enlightenment regarding Dewey's philosophy, for the method throughout is narrowly critical rather than adequately expository; nor is the book important as a refutation of Dewey's views for those interested in refuting them. The reader easily gains the impression that Dr. Howard, taking the idealistic standpoint, overemphasizes the early, Hegelian stages in the development of Dewey's thought, stages which are of no great consequence in a present-day discussion of Dewey, being little more than the indiscretions of philosophic youth. Inaccurate opinions are occasionally stated with startling boldness, as when Dr. Howard "suspects" Dewey of not being "in close touch with the methods of science" (p. 91). Dr. Howard does insufficient justice to Dewey's biological standpoint, and often misstates Dewey's views through trying to restate them in terms of his own customary idealistic terminology.

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JOURNALS AND NEW BOOKS

MIND. January, 1919. *The Idea of God: a Reply to Some Criticisms* (pp. 1-18): A. S. PRINGLE-PATTISON.—Replies to Dr. Rashdall's criticism of certain positions taken by the writer in his *Idea of God*, viz., as to the position taken in the controversy between idealism and realism, the relation between finite centers of consciousness and the supreme Spirit, and as to the question of efficient causality. *Mental Processes* (pp. 19-40): HUGH A. REYBURN.—Adopting the point of view that a metaphysical psychology must be as fruitful as a working hypothesis, the writer states, examines, and disagrees with the conception of mental processes put forward by Professor S. Alexander. The points under discussion are Professor Alex-

ander's view of mind as a fact in space, enjoyment, and contemplation, and subject and object. *Bergson and Absolute Idealism* (pp. 41-52): S. RADHAKRISHNAN.—Opposes the view that Bergson is anti-absolutistic and anti-intellectual and maintains that when rid of its inconsistencies, Bergson's philosophy "will become identical with absolutism of the concrete variety." The present paper is concerned with Bergson's account of "Life and Matter." Other Bergsonian theses are to be examined later. *On Certain Criticisms of Pluralism* (pp. 54-65): C. A. RICHARDSON.—Adopting a spiritualistic pluralism as "the most satisfactory hypothesis on which to base a system of philosophy," the writer defends his position against the objections brought forward by Dr. Bosanquet and by Professor Pringle-Pattison, those of the former relating to the question of externality and the conception of consciousness, those of the latter to the evolution of law and the "bare" monad. *Discussions: Mr. Joachim's Criticism of "Correspondence"* (pp. 66-74): A. K. ROGERS.—Examines Mr. Joachim's attack on correspondence and presents a view which avoids the ambiguities of Mr. Joachim's account. *The State and the Individual* (pp. 75-78): BERNARD BOSANQUET.—A defense of the writer's position against a criticism by Mr. Broad. *The Test of Experience* (pp. 79-81): J. L. STOCKS. *Critical Notes. New Books. Philosophical Periodicals. Notes and News.*

Espinoza, Roberto. *La Evolucion Democratica*. Santiago, Chile: Hume y Walker. 1918. Pp. viii + 347. \$5.

Hartman, Henry G. *Aesthetics*. Columbus, Ohio: R. G. Adams. 1919. Pp. 250.

Moser, Elwood Smith. *The Church of the Future, Evolution and Man, Natural Morality, and Other Essays*. Collegeville, Pa. 1919. Pp. xii + 199.

NOTES AND NEWS

THE *Educational Review* with the appearance of the December issue will pass from the editorial directorship and responsibility of President Butler of Columbia University, which it has enjoyed for twenty-nine years, and will hereafter be published under the auspices of the George H. Doran Co., of New York. Under the topic of "Notes and News" in the December issue, President Butler has given a brief and suggestive account of the part which the *Review* has played in American education. Originally planned in 1887, the *Review* was announced in the autumn of 1890, and the five leading articles of the first issue were written by Daniel C. Gilman, William

T. Harris, Josiah Royce, Andrew S. Draper and Charles De Garmo. It was planned for the purpose of "establishing in America the scientific study of education upon a sound philosophical basis; for raising the intellectual standard of the teaching profession, as well as for giving to its members a unity of thought and purpose; and for separating the administration of the nation's schools from the influence of personal and partisan politics." Among the projects that formed part of its general programme, President Butler mentions the planning of the New York College for the Training of Teachers, which resulted in the creation of Teachers College in Columbia University, the founding of the series of publications known as the Great Educators Series and the Teachers Professional Library, and the establishing of the College Entrance Examination Board.

DR. DANIEL BELL LEARY, formerly of Tulane University and Columbia, has been appointed first professor of psychology at the new college of arts and sciences, University of Buffalo.

DR. CHRISTINE LADD-FRANKLIN is giving a series of four lectures at Columbia University on Symbol Logic.

THE annual meeting of the American Psychological Association will be held this year at Harvard University from Monday to Wednesday, December 29-31. It is planned to have a joint session with the American Association of Clinical Psychologists.

SPECIAL NOTICE

COMMENCING January 1, 1920, the subscription price of the JOURNAL OF PHILOSOPHY will be \$4.00 a year.

THE JOURNAL OF PHILOSOPHY

PSYCHOLOGY AND SCIENTIFIC METHODS

INSTRUMENTALISM AND TELEOLOGY

IN the concluding paragraph of a paper entitled "A Medieval Aspect of Pragmatism," I raised the question: In what sense may it be said that a teleological method is assumed by a positive theory of knowledge? As described by James and Schiller the knowledge-process is not only "teleological," it may be called anthropocentric in so far as it is regarded as an interpretation of things under the assumption that true knowledge of them (and because true knowledge is "*in rebus*," in some sense things themselves) contribute to human life or happiness. By differentiating sharply between knowledge as apart from, or transcending, things, one might consistently assume that the "real" thing need not contribute to our purposes even though our interpretation of it does. And James in some sense does distinguish between thought and things. Truth is regarded as a commerce between our ideas and purposes, one portion of experience with another rather than reality. *But the making of truth is none the less the making of reality.* And hence the method which we postulate in dealing with the former is valid in respect to the latter. Empirical things, matters of fact, are radically present throughout in his way of thinking. So that whatever (by intellectualist hypothesis) is assumed to be unrelated to the creative, active purposes of men can not be accepted as real because it is not true.

The postulate is one which occurs not only in pragmatic thought. Even severely "intellectualist" writers (such as Bradley in *Appearance and Reality*) profess that if the truth were as a thorn in the flesh they would pluck it out. And I think it would be hard to find an "ism" which is not "pragmatic" in so far as it submits its inevitably dogmatic assumptions (whether *a priori* categories or a simple belief in sensations) to the experiments (dialectical as well as physical) by which *results tell*. Even the author of the *Critical Philosophy*, who conceived of his transcendental method as a human legislation, experimented with the application of his categories—a process which he considered their only use or significance. What

kinds of consequences are significant? is the problem as between Humanism and any rival theory. And Kant is a Pragmatist in so far as he postulates ethical ends as the criteria by which our knowledge is to be tested whenever objective reference (of a category or hypothesis) is not possible.

The present paper will attempt to throw light upon the meaning and implication of the idea of purpose as applied to a process of knowledge and then consider the method known as Instrumentalism. The wide discrepancies which obtain in the use of the terms purpose, intention, consequence, end, make it desirable to analyze the idea of teleology in general. Only thus can the meaning, and consequently the use of any method (since it always involves some sort of consequence), be made clear. G. E. Moore enumerates fourteen connotations of the term teleology, all of which were employed by Aristotle. If our language were richer we should be able to think more precisely! But since we lack better terms we shall have to employ the inherited symbols despite their emotional bias and want of a scientific odor of sanctity.

Broadly speaking, when we consider phenomena from the standpoint of teleology we regard them as objects of desire which we value positively in terms of whatever we regard as good. We conceive of such phenomena as in some sense the product of desire. We presuppose a causation, effective not only in the attainment of this intelligent end, but as such, intelligent and good. These terms suggest theology (which usually builds upon teleological assumptions), but we are not obliged to deal with anything theological in connection with our problem. The empirical basis or type in the light of which we consider the idea of teleology may well be any particular "good" object which we attain after anticipation when the motive associated with the act may be considered good. In such an experience the following factors are significant with relation to the elementary meaning of the term: (1) an ethical end, idea, object of desire, (2) a cause effective in bringing about a change, (3) a cause itself good, being active by virtue of its goodness. Yet this apparently simple experience contains within itself a multitude of discriminations which must be made before it can be used unambiguously in relation to other experience. Is the idea a cause? Is the object of desire something already existent, or is it newly created, as would seem to be required if it be something other than the result of a mechanical process? In what sense is "good" as applied either to a cause or to an effect differentiated from other qualities presumably present in the process? The answers to these and some other questions with which we shall be concerned, while theoretical in somewhat the same

sense in which a mathematician differentiates symbols and processes, are practical because they sharpen our instruments and determine the accuracy of our product. The danger of a transcendent law-giving is always present in the determination of our meanings but one can hardly fear this so much as a hit-or-miss dogmatism. The simplest mathematical procedure (which ought to serve as a type of clear and exact thinking) shows how many dubious or mistaken, even though superficially successful, methods the mind can indulge in and that any method unanalyzed is dogmatic. It matters not how successfully we may measure squares on hypotenuses by rule of thumb for our purposes, we should not call this mathematics.

Kant was perhaps more influential than any other writer in determining the present connotation of the term teleology. And we can not do better than begin our discussion in the light of his contribution. If anything is to be regarded as an exemplification of purpose it will, according to Kant, be something which has come into existence by virtue of one or more antecedent or contemporaneous causes (ends and means being often reciprocal) and an *ideal* cause would also reverse the temporal sequence represented in mechanical causation. Something has come into existence which did not previously exist in that form. Anything eternally what it is (such as Spinoza's substance) can not be considered teleologically since every such judgment is based upon the assumption of real change. As James would have put it: a world of purpose is a world of genuine progress. Eleatic stability whenever discovered would be an instance of purposelessness. Now however strongly the mind may be inclined to look at things from the standpoint of design, this tendency, or form of reflection, is not an *a priori* category in the sense in which we are compelled to interpret things under the forms of time and space, or of causation. The idea is one arising in reflection rather than in the type of reasoning represented by mathematics (formal analysis and synthesis) or by the objective, determinate (*bestimmende*) reference of such norms to phenomena (physics). As a means of interpretation or guidance for our minds in their quest for the intelligibility of phenomena it is, however, not only useful, but unavoidable. We can not so much as present to ourselves the growth of a blade of grass without relation to the concept of purpose. But since this concept in turn assumes not only the existence but the effective working of ideas in the outside world, we can not make out whether in the absence of our minds there would be such a thing as purpose. We find it necessary for the scientific method to postulate a spatial-temporal, determinate mechanism (matter in motion). Only thus is description made possible. But if we make any effort

to interpret the interrelationships of certain phenomena we find it equally necessary to assume the objective operation of a causation analogous to that which seems to take place in the relationship of our thought and volition to bodily activity. And this character of our minds constrains us to assume that contingency is involved in every such expression of purpose, although without our being able to assume that any process exemplifies chance. There was, of course, no doubt in Kant's mind concerning the contingency involved in moral autonomy in so far as a man *freely* does his duty. But mechanical necessity and teleological contingency involve no antinomy because the latter can claim no constitutive function (as predicated of objects), and can only claim to be a regulative norm which guides thought (safely and well) in the direction of human purposes. Despite its want of objective application it has "practical" validity, and just as in the case of mechanical necessity the idea seems to involve something transcending itself. Thus both seem to have roots in an indefinite process of which they are imperfect conceptions.

Thus the idea of purpose as involving mutually interdependent parts, each actively creating and being created, forming a product in which every portion is at the same time means and end is, for Kant, chiefly limited by our inability to discover adequate analogues in experience by which to explain phenomena. The idea of artistry implies an *external* intelligence and volition, whereas organic beings appear to organize themselves. The analogy of life (hylozoism) endows matter with a quality which we can not discover in it. Or if it postulates souls, either *presupposes* organic material as means to its ends, or makes the soul an external artist of the organism, in this way removing it from the natural world again. Thus the idea of teleology though necessary for any interpretation of an organized product of nature can not be assimilated to the object under consideration. The leading for our thought (but only as a reflection) is therefore in the direction of non-empirical transcendental causes, or perhaps ultimately, cause. Such reflection however, must never divert the natural scientist in his determination to discover mechanical causes, despite the fact that *explanation* has never been the outcome of his method wherever intelligence was to be interpreted.

In this way the dilemma of causes which can not explain and of explanations for which there is want of empirical experience is resolved into a recognition of both horns and their use to the fullest possible extent—one for sense experience and the other for reflection in the light of postulates which no one who thinks can escape. Howsoever far evolution may describe interdependence and discover new mechanical coordinations, intelligibility will obviously assume a

process at least quasi-mental in phenomena and there will be individual psychological purposes which are no less inevitable than are sense data.

Now Kant maintains that within the limits imposed upon teleological reflection by the fact that it is not objectively determinate, hence can not limit the possibilities of things, man is to be regarded as the purpose in relation to which all other purposes of nature may constitute a system. He may be regarded as central in the scheme of things. But a more ultimate aspect than human *existence* (mere *being*) is, in turn, involved in such an assumption. *To be* can constitute no purpose, whether with relation to an Eleatic mechanism or to a human mind. Nor can a *state* of happiness in itself be regarded as an end. The purposive in man is indissolubly bound up with his free, end-positing, intelligently willing activity, when using the system of which he is a part as his tool, he at the same time furthers the kingdom of ends by his *action*. Thus the good of man (and of all reasonable creatures in the world) becomes the keystone of the teleological structure, not as the result of an interplay of natural forces or as an expression of a *given* structure or character, but as self-imposed, autonomous quest of certain ends. Moral good is thus the logical goal toward which teleological reflection tends. And this is the basis upon which Kant assumes that man's moral purposes can be regarded as a touchstone of reality. We can, indeed *must* if we try our hand at the business of interpretation, use the analogy of our good-willing, freely choosing, creative intelligence.

This excursus into the *Kritik der Urtheilskraft* (a book strangely neglected to-day) can perhaps be justified by the hope of clarifying our meanings through comparison with a critical definition. We should in this way be on our guard against the unsuspecting simplicity which figures in some of our current discussion. For example when the idea of purpose is divorced from ethical ends, or is completely identified with the bare anticipation of a consequent, or even with an assumed unconscious (*e. g.*, instinctive) adaptation, which may be as inevitable as any mechanical causation, we are warranted in enquiring whether our meaning is significant, useless, or inherently absurd.

The denotative use of the term purpose by which psychologists generally describe many kinds of mental action from sensory determination of attention to voluntary mischievous behavior, is, of course, *qua* description open to no objection. It has little use, however, for philosophical interpretation. To draw the conclusion, for example, that our knowledge process is a teleological one from the fact that our minds illustrate (good, bad, indifferent, erroneous as

well as truth-serving) purposes is as significant as to say that getting knowledge is to think, when thinking connotes "whatever goes on in one's head." It is always a particular, specific character which makes any end significant in this connection. And for this reason also a mere anticipation or the very utmost volition is without meaning until we ask: What kind of an end is sought? Unconsciousness also serves us but little since by hypothesis we are seeking that which can be verified by clear and waking perception. The extension of the term purpose may, of course, be broadened in the direction of "unconscious" purposes provided we discover similarity between the latter and our conscious experience. But the interpretation of the direct, clear, voluntary, conscious, in terms of their contradictions is surely the method of going into the dark for light. To speak of purpose again as the product of mechanical causes is to destroy the very heart of its historic meaning. To characterize it as a self-inverting mechanism, however, is the unpardonable sin of philosophical suicide. One might with so much more self-respect deny the relevance of the teleological idea to any experience!

To turn to our more immediate object: pragmatists quite generally realize that the end which can alone justify the use of the term teleological in connection with the getting of knowledge is some form of good. This good is determined otherwise than by the fact of its being an object of desire—as it must in order to be significant. The "creative," non-mechanical, indeterminate character of the knowledge-process (as purposive) implying effective action, doing something rather than being, changing the merely given, also agrees with the insight of Kant when he declared that anything static or completed could not be discussed teleologically. Certain pragmatists also recognize the "practical," belief, character of their criterion. James repeatedly affirms (as did Kant) the non-objective validity of his method. But at the same time he insisted still more upon the radically empirical, direct, cash-value, "thing"-quality of his thought.

The doctrine of Instrumentalism as set forth in the various Essays of Professor Dewey differs, in my judgment, from that of James and Schiller chiefly in the ends set up as objects of desire toward which the knowledge-process is assumed to aim. It is teleological not only in the sense of having a purpose other than the process itself (as "anti-intellectual"), it is one seeking to control the course of events in such a way that they may take one turn rather than another, and that a humanly good turn. These ends, objects, consequences, are in some sense creations of our voluntary intelligence, *i. e.*, are brought into being by that process and hence did not exist

beforehand. The process anticipates ideally and at the same time is an effective cause; the creative act is in some sense the result of a "need," is caught up in the wider causation of the whole environment, and yet is not "given." We are minds only as we seek to act in a way which shall *modify* the given. Contingency is thus assumed to the extent that freedom is, but this freedom to modify the given by the practical action called knowledge is based upon no statement of evidence, so far as I am informed, concerning the causes antecedent to mental action. A freely creative act in any significant sense of these terms is, according to Kant, transcendent, in the sense that it is not given in the order of nature, where we are constrained to think that every effect must have its cause. Now a purpose defined as the effect of definitely given causes in the physico-chemical order would obviously be either a contradiction or a self-delusion. So that the problem of knowledge in its teleological aspect is linked with that of human freedom. And certain interesting conclusions result from the assumed creative function of our intelligence.

Granted a doctrine of universal causation (in the sense that the sciences postulate it) we may assume (since Dewey finds no ground for the assumption of anything transcendent) that the mental, "prospective," ideal agencies as well as physiological functions are all bound up with the course of nature, every particular purpose in any "agent-patient" being the result of this give-and-take, and a part of the greater system proceeding on its course of evolution. The premise of continuity forms the background of many Essays notably in "The Influence of Darwinism on Philosophy," but in "A Recovery of Philosophy" Dewey seeks to do away henceforward with that distinction between subject and object by which the self has by some philosophers been regarded as "outside of things." He would have no more of the term subjective as "implying invidious contrast with objectivity." The knowledge process is "one real thing in dynamic connection with another real thing," as genuine an event as any physical conjoint action, "say the function of hydrogen and oxygen in producing water." And "The self or subject is part and parcel of the course of events." Hence any particular purpose, according to Dewey, is an expression of natural forces, some of them "agents," conscious or mental, others "patients," physical (or howsoever described), none of them "above" or "outside" the given order of nature. This postulate enables him to rise superior to any logical necessity of distinguishing between "objective" data in which Kant found it impossible to employ consistently the idea of purpose, and that "world of reflection" in which the spectator, undaunted and not submerged in the course of

events, can not avoid making use of an interpretation in terms of purpose. In other words, *purpose is in rebus* and our previous philosophical difficulties in seeing how this is possible are brushed aside. The mind simply is a freely acting object, part and parcel of the course of events, which consequently is in so far purposive.

By implication the "course of events" is not completely purposive. "Knowing is a way of employing empirical occurrences with respect to increasing power to direct the consequences which flow from things . . . an outlook upon future possibilities with reference to attaining the better and averting the worse."¹ But on the other hand, if we suppose that this process is "part and parcel of the course of events" and, moreover, one by which alone anything can become real as a portion of what we accept as true, it is clear that purposive action is assumed to play a dominant, if not exclusive, rôle in everything with which knowledge can be concerned. The method of Instrumentalism is therefore assumed to be objectively determinate (*bestimmend*) rather than a "mere spectator's" meditative reflection. We are minds only as we are purposive agents; presumably therefore, all that comes within the scope of mind is in some sense adapted to its purposes.

But such a proposition has significance—since empirically there are erroneous as well as evil purposes—only when qualified. Even Nihilists and Intellectualists have their designs. And as has been noted before, Instrumentalism professes to be guided by the good. "The problem of error is simply the problem of evil" (Dewey, in a "Recovery of Philosophy"). Consequences are to be measured "in the specific sense of good which is relevant to establishing the truth of an idea" (*Experimental Logic*, p. 319). Elsewhere he wrote: "The term 'pragmatic' means only the rule of referring all thinking . . . to consequences for final meaning and test. Nothing is said about the nature of the consequences; they may be esthetic, or moral, or political, or religious in quality—anything you please" (Essay, "An Added Note to the Practical"). But this does not deny the common quality in these consequences (or their significance if they are not to be differentiated from other kinds); rather it subsumes a great variety under the general head of "life-furthering," "evil-averting," "power-increasing," human "goods in the plural." The function of philosophy is by Dewey correlated, and often identified ("A Recovery, etc.") with the attainment of economic, social, international, sexual and every other form of human well-being even to the "amelioration of our manners." However multitudinous and various, particular, concrete and specific these goods, they have a common quality and serve as a criterion.

¹ *A Survey of Philosophy*, p. 53.

For that reason the atomizing or indefinite particularization of goods does not alter the teleological character of Instrumentalism. *The summum bonum* may give way to a multitude of particulars making "for the attainment of the better and averting the worse in human life," one may forego any reference to *the* Reality or other capitals in terms of which men have sometimes tried to think, one may even condemn the "grandiloquent spectators of the universe" and the autocratic social systems which endowed them, and at the same time assume a "universal," a "principle," a "category," a "supposed necessity." Instrumentalism is confessedly a *method* of dealing with *every* situation in which knowledge is sought. It does not show any tendency toward developing into a new number-philosophy. So that unless there is to be henceforward no problem of evil or of error (which one might be inclined to think from the destruction of problems undertaken in "A Recovery of Philosophy") there will remain a sense in which good ends may be known in pragmatic methods.

It remains to be observed that as a method Instrumentalism is more overtly anthropocentric than was the general principle of Socrates. He, together with certain other philosophers since his day, professed to *believe* that on the whole the course of nature makes for human good. Dewey apparently erects this *belief* into a *method* by which alone to get knowledge concerning the course of nature. Whatever enters into our experience, in the widest sense of that word—intercourse with environment, prospective, particular, physiological, what you will—is assumed to operate for man's good in so far as that experience is genuine knowledge. And if genuine knowledge connotes anything it includes at least an intimation of the character, or way of operating, of *something*; this character and *modus operandi* of every possible object of knowledge are, by the method in question, assumed to be such that when truly known the course of events (which includes the knowledge-process) will be seen to make for human good.

Such a postulate when coordinated with the continuities which Darwin introduced into philosophy and science by breaking down the conception of species (see *Darwinism and Philosophy*) affords further conclusions which can not be more than indicated here. If this teleological direction of the course of events, this give-and-take of agents-patients, partly mechanical, partly vital, be assumed to have operated in the prehuman days, the evolutionary lesson would seem to teach us that having found purposes, howsoever individually conscious and particular they be, in that intercourse with our environment which we call experience, we shall not be able to draw

the line at the human species, but must seek for anticipations of human good wherever the roots of mind are found. We *are* minds according to Dewey only as the stimulus of future consequences measured in ethical terms is present. In the pre-human day, therefore, human good was anticipated as mind developed. These conclusions are not vitiated by the assumed fact that human goods and ends are themselves developing. It is the character of these ends which gives the theory significance. To assume that they have no character is to subscribe to the Gorgian proposition that one's doctrine can not be communicated.

To the present writer the assumption of a "course of events," "environment," "agent-patient activity," "nature, infinite, uniform and homogeneous," "ever-changing democracy of elements," "pluralistic reals," "universe," or what you will, which is knowable only in case it contributes to that *portion of itself* called human goods is an hypothesis not sufficiently founded upon evidence to warrant its adoption as general method of investigation. It may be a correct hypothesis, surely it is a flattering one; but in the light of our present philosophical and scientific insight its use as a method is highly dogmatic, because itself is in need of inductive evidence as well as deductive premises to make it plausible. The "subjective" transcendence of the species man alone seems to provide hope for such a premise, but this by hypothesis is rejected. The Instrumentalist, apparently, has not entirely learned his evolutionary lesson that the species *homo* may not be especially prominent in later geologic ages.

It is, of course, no repudiation of the programme of making philosophy more effective as "instrument of social direction" to call attention to the fact that empirically it is very much more than such an "organ." The "species" of "behavior" represented by such efforts must also learn democratically to take its place in the larger whole. For at present there is danger in America lest an actively militant ruthlessness deal somewhat too murderously with the life of thought.

Since the above was set up in type papers by Dr. Sabin and Dr. Owen have raised further questions concerning this issue. Dr. Owen thinks there is a logical flaw in attributing a teleological character to anything as an inference from the assumption that knowledge of such a thing is teleological. The knowledge process is said to be confused with the object of knowledge and hence the formula

Real world . . . True knowledge . . . Good results
should be changed into

Real world . . . *Qua* truly known . . . Good results.

The point is well taken when one distinguishes sharply between consciousness as a wholly "subjective" or perhaps transcendent process, above, apart from, unrelated to objects save in a contemplative sense. But as I interpret James it is just here that he combats most vigorously the "intellectualist" assumption which should divorce knowledge from the course of events. If one denies that the knowing process is a function of the real world the analogies of Dr. Owen become pertinent.

In answer to Dr. Sabin (this JOURNAL, August 28, 1919) I would say first of all that the purpose of "A Medieval Aspect of Pragmatism" was neither to condemn all Middle Age conceptions ("Even saints in tortured bodies may have moments of extraordinary penetration") nor to flay pragmatists. Are we not all of us subsumable under one or more of the varieties? Rather it was the attempt to examine a particular aspect, one theorem as it were, and to trace it back to more fundamental assumptions. The extent to which that theorem might be said to characterize a school or group, whether Humanist or Behaviorist, a question so interestingly discussed by Dr. Sabin, was as far as possible avoided.

The crucial point in the hypothesis is the dynamic relationship which is said to exist between the agent and his world when he truly knows it. And obviously this relationship may mean two things. It may be regarded as a relationship such that "the objects change as the behavior of the organism toward them changes," a doctrine which according to Dr. Sabin "unites all pragmatists" (489); or conversely, it may mean that according as the object changes the living being responds. Now the point of my whole discussion was the thesis that it is logically impossible even after having adopted the first assumption "which unites all pragmatists," to avoid the second one, namely that certain changes in the object of my knowledge may be supposed to alter that knowledge itself. Without such a relationship it would be hard to say what knowledge is about. And the argument aimed to show that James by his recognition of such a "correspondence," a knowledge *in rebus* (as also Dewey above) specifically recognizes the doctrine that the character of reality (albeit an *X*) is a functional determinant of our knowledge of it. The alternative would, of course be Gorgian skepticism—or possibly special revelation. We are, therefore, constrained to take into account this second relationship—whatever we may think about the other—in case our knowledge is assumed to mean anything more than psychological states. For example, if I were to discover that atomic weights are functions of the shapes of atoms this knowledge would be an exponent, a function of the atoms themselves (assuming

my experience to be genuine). Other functions they presumably have, as have also my psychological activities. But the act of knowing certainly at no point foregoes definite relationships to its objects in the sense that when the latter change the former responds sympathetically. This James refers to as the "objective control under which our minds perform their operation." (*Prag.* 233.)

Now if we proceed to characterize the response, conscious action, agent-patient relationship, as one useful, life-furthering, good-producing when that knowing function is genuine, we are certainly characterizing more than the psychological function as such. We express a judgment concerning that "objective control under which our minds perform their operations." It may not, indeed, be the predication of the same quality which is said to characterize our mental action. But if we assume that the criterion by which we assure ourselves of a genuine control is life-furthering, evil-averting, *etc.*, we assuredly ascribe a functional something (call it what you will) by which alone the outcome is as it is. Or as it was expressed in the earlier paper, "if true knowledge is teleological the reason for it is to be sought in reality itself." X is related to Y in such a manner that X^a (where a symbolizes something assumed to be real) is invariably followed by Y^t (where t is taken as a mark of truth). If t can then be shown to be equivalent to p (where p represents the pragmatic character described above) X^a is functionally related to Y^p .

With reference to the present writer's interpretation of James' arguments in the *Varieties of Religious Experience*, he frankly admits that he may have been mistaken. But after demolishing the traditional scholastic conceptions of God by the pragmatic test of significant relation to our action, James goes on to ask: "What shall we now say of the attributes called moral? Pragmatically they stand on an entirely different footing. They positively determine fear and hope and expectation, and are foundations of the saintly life. . . ." If *dogmatic theology* could prove such characters she might well claim to provide a solid basis for religion. But *dogmatic theology* can not do this; nor can an intellectualist philosophy (448). Certainly the implication is that pragmatic philosophy can. And in the succeeding portions of the volume the pragmatic conclusions are set forth, no small portion of dogmatic theology being finally rescued. God returns to do a wholesale rather than a retail business, he (not it!) is like ourselves, and a moral agent. "We have in the fact that the conscious person is continuous with a wider self through which saving experiences come a positive content of religious experience, which, it seems to me, is literally and objectively true as

far as it goes" (515). And thence James goes on to state his pragmatic overbelief hypotheses, that is to say, those which his method—over and over again specifically mentioned—lead him to accept as true. So real, so genuinely valid for him, have a theistic, somewhat anthropomorphic, and certainly ethical interpretation become in the last chapters, that he conceives it possible "actually to help God in turn to be more effectively faithful to his own greater tasks" (519). If it was an error, therefore, in my "Mediæval Aspect" to hold that James attributed a real existence and ethical character to the Deity upon the basis of pragmatic tests his argument may be said to lend itself to such an interpretation.

With reference to Professor Sabin's distinction between real things as being and as *becoming* teleological I would beg to profess my disbelief in creation *ex nihilo*.

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SOCIETIES

AMERICAN PHILOSOPHICAL ASSOCIATION: ABSTRACTS OF PAPERS BY LEADERS OF THE DISCUSSION ON "THE NATURE OF THE COMMUNITY."

The Nature of the Community, A Defense of Philosophic Orthodoxy.
WILBUR M. URBAN.

The object of this paper is to interpret philosophically the "traditional and orthodox" conceptions of community and state in such a way as to serve as a point of reference in the discussions of the Association. An attempt is made to meet and evaluate the current criticisms of the "over-individual" and monistic theories, the underlying belief of the writer being that these proposals for reconstruction do not so much affect fundamental conceptions of community and state as the institutions and mechanisms developed for the expression of their life.

A distinction is drawn between social and political formulas as descriptions of "natural" and historical fact and as résumés of social meanings and values. Whatever be the place of such formulas in social and political science, in philosophy the question of the nature of the social order is primarily one of meaning and value. From this point of view, the traditional conceptions have not only "the advantage of ideality" (Dewey), but of essential reality. No merely realistic or instrumental conceptions, it is held, can exhibit the true nature of the social order.

The paper is divided about equally between the general con-

ception of the over-individual nature of community and the more specific monistic theory of the state. As we should expect, the criticisms of these theories fall naturally into those which deny the correspondence of these theories with actual fact, and those which deny their validity as expressions of social meanings and values. So far as the first point is concerned, a large part of current criticism is frankly accepted. The analogies of organism or over-individual self, if taken literally, both break down at certain points, but the value of these conceptions lies rather in the fact that they tell us what social reality, community, is *not* (e. g., an aggregate, conscious construction) rather than what it ultimately is. Much more important is it to meet the criticisms from the standpoint of "value," and here the over-individual conception maintains itself. Far from its being true, as for instance MacIver holds, that "we can not give meaning and concreteness to such a value" (over-individual mind) it is something we are constantly doing, and must do, if a large part of our ethical and legal judgments are to be valid. Far from its being true that such a mind absorbs or "makes unreal" personal and group values, the postulation of over-individual entities and structures is the very condition of their reality. From this point of view the "over-individual" has a distinct advantage over the "inter-individual" concept of community.

As is commonly recognized, the relation of the state, *communitas communitatum*, to the community is the final test of any conception of community, and the writer holds that the monistic theory, rightly understood, is implicit in communal psychology and logic, if these terms may be allowed. It is denied that such a conception involves the "illegitimate identification" of community and state or the absorption of either individual or association. On the other hand, any other conception leads to a still more doubtful identification of the state with its merely "political fabric."

A clear distinction is drawn here also between the "monistic formula" as a description of historical fact and as a résumé of social meanings and values. Current criticisms of the traditional theory of sovereignty are admitted and its fictional elements frankly recognized. But a distinction is emphatically drawn between the legal concept of *omnipotence* and the ethical concept and ideal of *omni-compotence*. The latter is defined, not as ultimate authority in all things, but final authority in certain things which concern all the elements of community. Omni-compotence implies the ethical character of the state in a preeminent sense, and this view is defended against current attacks. The ends of the state are indeed an ethical *minimum*, but a minimum so indispensable to the life of the community, present and future, that it must be clearly differentiated from the ends of all voluntary associations.

The main contention of the paper is that social and political formulas are by their very nature more than descriptions of historical fact. As expressions of the meaning of the social order, the traditional and orthodox formulas still represent the *sensus communis* in its deepest moments and highest reaches. The critics of these theories demand that our formulas be made to fit the facts, but among the facts to be included are precisely the meanings and values which these idealistic formulas have more or less adequately expressed.

Communal Ghosts and Other Perils in Social Philosophy. MORRIS R. COHEN. (Printed in full in this JOURNAL, Vol. XVI, No. 25, pp. 673-690.)

Community is a Process. M. P. FOLLETT.

The correspondence between the results of recent biological and psychological research and what we find in our observation of groups is a matter of the greatest importance to politics, economics, jurisprudence and ethics. From both these lines of study, that based on the individual and that based on groups, we see that community, the essential life process, is the activity of integrating. This process implies neither absorption on the one hand, nor, on the other, as the pluralists would have us believe, balance and compromise, but a genuine inter-weaving where each individual has its full part in the whole a-making. It is an all-including, self-originating, continuously-creating activity. It creates personality, purpose, will. With these appear freedom and law.

This conception of community tends to do away with some of the antagonisms which separate monism and pluralism. When Holt in his interpretation and expansion of the Freudian psychology shows us one and only one evolving process which at different stages we call matter or mind—we are on the road to a fruitful synthesis. By showing us scientifically that the integrating whole is always more than the sum of all the parts, the appearing of the new as a moment in evolution is clearly indicated. This corresponds perfectly to what we find in our study of groups: the genuine social will, or community, is always a moment in the process of integrating. The recognition that the joint action of reflex arcs is not mere reflex action, the recognition of the law of *organized* response, and that behavior is not a function of the immediate stimulus, is as important for sociology as for biology.

Moreover, to continue with the hints of synthesis, when some of the realists show us the objective as an integral part of the process of integration becoming thereby the subjective, and the subjective the

objective, the old distinction between subject and object loses its significance. In our study of the group process also we see this distinction disappearing. The functional theory of causation, too, changes much of our thought. When all taint of static ends disappears, and purpose is seen *within* the process, the true place of teleology in ethics and politics, economics and jurisprudence, is revealed to us. Again, the conception of community as never-ceasing activity abolishes the notion of hierarchy held by many of the monists and changes the pluralists' mistaken idea of unity. That the state is "supreme," "over and above," becomes a meaningless sentence; we see that there can be no over-individual mind, but only an inter-individual mind—an entirely different conception. As meaningless too becomes the pluralists' "reduction to unity." We agree with the pluralists that there can be no unity and yet we see the life process as one of continuous unifying. Spontaneous unifying is the reality for humanity. But spontaneous unifying is what the political pluralists are already urging in their advocacy of groups. And spontaneous unifying is the heart of a true monism. The activity of the pluralists' entities, the activity which is their only being, should be harmonious adjustment to one another—which is monism a-making.

But the most important result of an appreciation of the all-sufficing, all-including character of the community process is that we come to realize that it is this process which is continuously producing both society and the individual. Both idealists and pluralists put the individual outside the process: the idealists when they would have us "choose" the universal community, the political pluralists when they would have us "choose" the "nearest" group. The latter forget that the realism upon which their political science is supposed to be founded has shown us, in its interpretation of recent biological research, that the reaction *is* the picking out of a part of that which sets up the reaction. They forget that the self which they say chooses the stimuli is being made by reaction to these stimuli. The practical importance of this for our present political and industrial troubles (policemen's strikes, *etc.*) is obvious. The fallacy of pluralism is not its pluralism, but that it is based on an outside individual. The outside individual is the pluralist myth. The correction of this error would, I am convinced, bring idealists and realists nearer together.

And perhaps the idealists would not so strenuously object to pragmatism if the pragmatists would somewhat change their idea of testing. The weakness of pragmatism, as usually understood, is that when you "test" you test a static idea. And there are no static

ideas. Community is a process, an endlessly creative process. When we have a firmer grip on our powers, we may find it more "pragmatic" to create than to test.

The Pluralistic State. HAROLD J. LASKI.

1. Despite the great service rendered by the philosophers to political science, they have studied rather the form than the substance of the state. This has meant an undue emphasis upon purpose as distinct from the fulfilment of purpose. It has led to an analysis of the "pure instance" rather than an analysis of the actual experiments with which history presents us.

2. This is why the attitude of the philosopher has been so similar to that of the lawyer. The "rights" studied by the latter take their origin from a set of historical circumstances which the lawyer, from his standpoint naturally, is able to ignore. They differ from the study of "right"; but it is upon the latter problem that our attention must to-day be concentrated.

3. We have found that a state in which sovereignty is single is morally inadequate and administratively inefficient. For (a) it depends upon an intellectualist view of the state which is not borne out by the facts. (i) It assumes that the government is fully representative of the community. This is only partially the case. (ii) It assumes that the problems of the modern state admit of general solutions. In fact the main problem is rather the different way in which general solutions must be administered. (iii) It assumes that the voter transcends his own interest by merging himself into a larger whole, with the result that a "general will" can be secured. The truth rather is that we are confronted by a series of special wills, none of which can claim any necessary preeminence. (iv) It does not sufficiently investigate the moral character of governmental acts. (v) It does not sufficiently investigate the relation of the citizen-body as a body capable of, but rarely exercising, judgment upon governmental acts. (b) It does not see that the rules of administration are dependent upon certain psychological factors. (i) There is a law of diminishing administrative returns. An official can not be charged with business over a territory beyond a certain size without administering less efficiently for each addition to his work. (ii) No amount of efficiency at a central office will morally compensate for the inferior interest in the result obtained of those who have had no share in making it. (iii) Every monistic state is over-centralized: this, as Lamennais said, results in apoplexy at the center and anæmia at the extremities. (iv) Every monistic state is trying to apply equal and uniform solutions, *e. g.*, in education, to things neither equal nor uniform.

4. The pluralistic state is an attempt to remedy these defects by substituting coordination for a hierarchical structure. His main propositions are: (i) The allegiance of man is diverse—to state, to church, to trade-union. Where they conflict he ought to support that which his judgment suggests is right. (ii) There is therefore no such thing as the sovereignty of law in any sense which admits of practical political application. (iii) In actual fact what we meet is a variety of interests, functional and territorial, and the way in which they articulate suggests the necessarily federal character of all government. (iv) The main advantage of this federal structure is that it affords better channels for the operation of an active consent on the part of citizens than any other method. (v) This federalism must not be thought of in purely spatial terms. It applies not less, say, to the government of the cotton industry than to the government of Massachusetts. (vi) Ultimately it suggests a rough partition between the two great functions of production and consumption with a state in which supreme power is divided between the two. (vii) Where the interests of each touch upon the other some mechanism of ultimate adjustment will be needed. But the main thing is to avoid a system in which supreme power is concentrated at a single point in the body public.

5. Ultimately there is involved in this view a theory of the nature of liberty. In Mr. Graham Wallas' phrase, liberty is conceived as being the "capacity of continuous initiative," and it is suggested that this is unattainable in a monistic state upon the present administrative scale except for a small governing class. Liberty, it is argued, results from a division of forces, and the organization of a contingent system of resistances is the only way in which it can be preserved.

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The Community and Economic Groups. J. H. TUFTS.

The problem of the community in relation to economic groups is just now showing two opposing tendencies at work. On the one hand, economic power appears to be steadily gaining in effectual control over all living conditions, and in the view of some is rendering political power obsolescent. At times it is the capitalist or owner group which conspicuously exhibits this power through its

setting of prices; at times it is the labor group through an Adamson law, or a threatened shutting off of the community from food or fuel. On the other hand, such laws as the Clayton and Federal Trade Commission acts, and such decisions as *Hitchman Coal and Coke Co. vs. Mitchell*, and the recent injunction in the coal strike, show a tendency to restrict the powers of both economic groups.

Which control is better? The merits of political and legal control lie in the tendency toward general interests, toward equality and responsibility; its defects are its failures to deal constructively with new issues, to give a hearing to the important special interests of various groups, and to utilize for public welfare the many types of ability which majority elections do not select and which institutions that are prevailingly legal do not provide for. The merits of economic control are its greater flexibility and constructiveness, since it is unhampered by precedents or constitutions, its regard for vital interests of present life and for effective as well as formal freedom. Its defects are its devotion to special group interests, often to the ignoring of general interests, its imperfect sense of responsibility, and a somewhat one-sided emphasis upon liberty rather than justice.

REVIEWS AND ABSTRACTS OF LITERATURE

The Elementary Nervous System. G. H. PARKER. Philadelphia and London: J. B. Lippincott Company. 1919. Pp. 229.

This book is one of a series of monographs on experimental biology edited by Jacques Loeb, T. H. Morgan, and W. J. V. Osterhout. Its delimited field of investigation is the elementary nervous system as represented alike in lower multicellular animals and, locally, in vertebrate organisms. Professor Parker suggests the term neuro-muscular mechanism to designate the subject of his researches, since in his view effectors should be included along with receptors and adjustors in any adequate conception of the nervous system in its wider meaning and relations. Indeed, in the matter of genesis his opinion is that muscle was developed antecedently to nervous tissue proper, and should be regarded as the original element in the evolving mechanism constituted, in its final phases, of cord, brain, and sense organs with all their intricate muscular, glandular and other connections. Accordingly, his study is divided into three parts in which he successively considers independent effectors, such as are found in sponges; the receptor-effector systems of coelenterates; and lastly, in brief conclusion, the relation of elementary receptor-effector complexes to the central nervous system of higher animals. The

most interesting passages in the book are those concerned with the vestiges from lower forms still to be found in higher types of nervous system. Of such are independent effectors which, the author declares, will be found in increasing abundance as investigation continues. Of such also are nerve nets which confer upon the organs possessing them a high degree of autonomy. The book, though it professes no affiliations with behaviorism or any other of the recent theories which stress the psychological significance of physiological activities, can not fail to interest in special degree those in sympathy with all efforts to determine the exact relations between the seat of consciousness and bodily expression.

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BARNARD COLLEGE.

JOURNALS AND NEW BOOKS

REVUE DE METAPHYSIQUE ET DE MORALE. May-June, 1919. *La Question de la sincérité de Descartes* (pp. 297-311): G. MILHAUD.—Reasons for believing in Descartes' sincerity, intended as an introduction to a book on Descartes. *Sur une définition possible des Ordinaux transfinis* (pp. 313-334): A. REYMOND.—A definition obtained by introducing the notions of simple powers compared by cardinaling. *Sur la Composition du "Phèdre"* (pp. 335-351): E. BOURGUET.—A defense of the structure of the *Phedrus* against criticisms by H. Raeder. *La Doctrine de Ravaisson et la Pensée moderne* (pp. 353-374): R. LENOIR.—Ravaisson escaped the influence of mathematical philosophy, critical philosophy, and biological science so could respond as a poet who felt a metaphysical emotion in the presence of the universe. *Etudes critiques. Le Traité de Logique de Goblots*: J. NICOD. *Discussions: A propos de l'Entropie*: G. MOURET. *Enseignement. Sur la Méthode d'enseignement des Mathématiques et des Sciences pour la formation du futur Maître*: E. SIGNALO. *Questions pratiques. La "Force majeure et la Guerre"*: G. AILLET.

Ellwood, Charles A. *The Social Problem: A Reconstructive Analysis*. (Revised edition.) New York: Macmillan Co. 1919. Pp. xii + 289. \$1.75.

NOTES AND NEWS

A MEETING of the Aristotelian Society was held on November 3, with Professor James Ward, the president, in the chair. The president delivered the inaugural address of the session on "In the Beginning. . . ."

The problem that the universe sets us is an inverse problem. But the two most distinguished philosophers amongst us, starting from the Absolute as their criterion, declare the whole world as we know it, including ourselves, as infected with contradictions, which are only resolved in the Absolute. Precisely how resolved we do not know, and never can know. But at least everything is blended and transformed into one perfect experience in which no finite centers of experience as such are respected or retained. Is the Absolute then making sport of us, it is asked, since the untransformed, discrepant "appearances" it would seem, must ever remain to perplex us? No, it is replied, for these appearances are the Absolute's revelation to us. Moreover in the unification of our originally disjointed experiences which underlies all human development, and again in the ever-increasing mutual "transparency" of formally distinct individuals—who are thereby ever more and more enabled to think and feel and act as one—we can see the beginning of the process that in the Absolute is eternally accomplished. But it was rejoined: The progress of knowledge shows no sign of reducing the categories of thought to the mere "adjective" with which perhaps it began. Nor does our advance to a higher unity show any tendency to replace stability and originality of character by mere "connexions of content."

In conclusion it was urged that it is hopeless to attempt to begin from the standpoint which only a *completed* philosophy could occupy. To advance continuously and be coherent—that should be our golden rule. The whole procedure would be tentative—that must always be the case with inverse problems. Crises too there would be again, as in the past; but such crises after all would only be causes of "sloughing an outgrown skin" not of radical disease. Philosophy on the whole has progressed; and so long as it follows the method which nature herself observes—to make no leaps—why should it not progress still?

Through the generosity of a number of his students Dr. A. A. Roback, professor of psychology at Northeastern College, has been able to establish a psychological laboratory at the School of Liberal Arts of Northeastern College.

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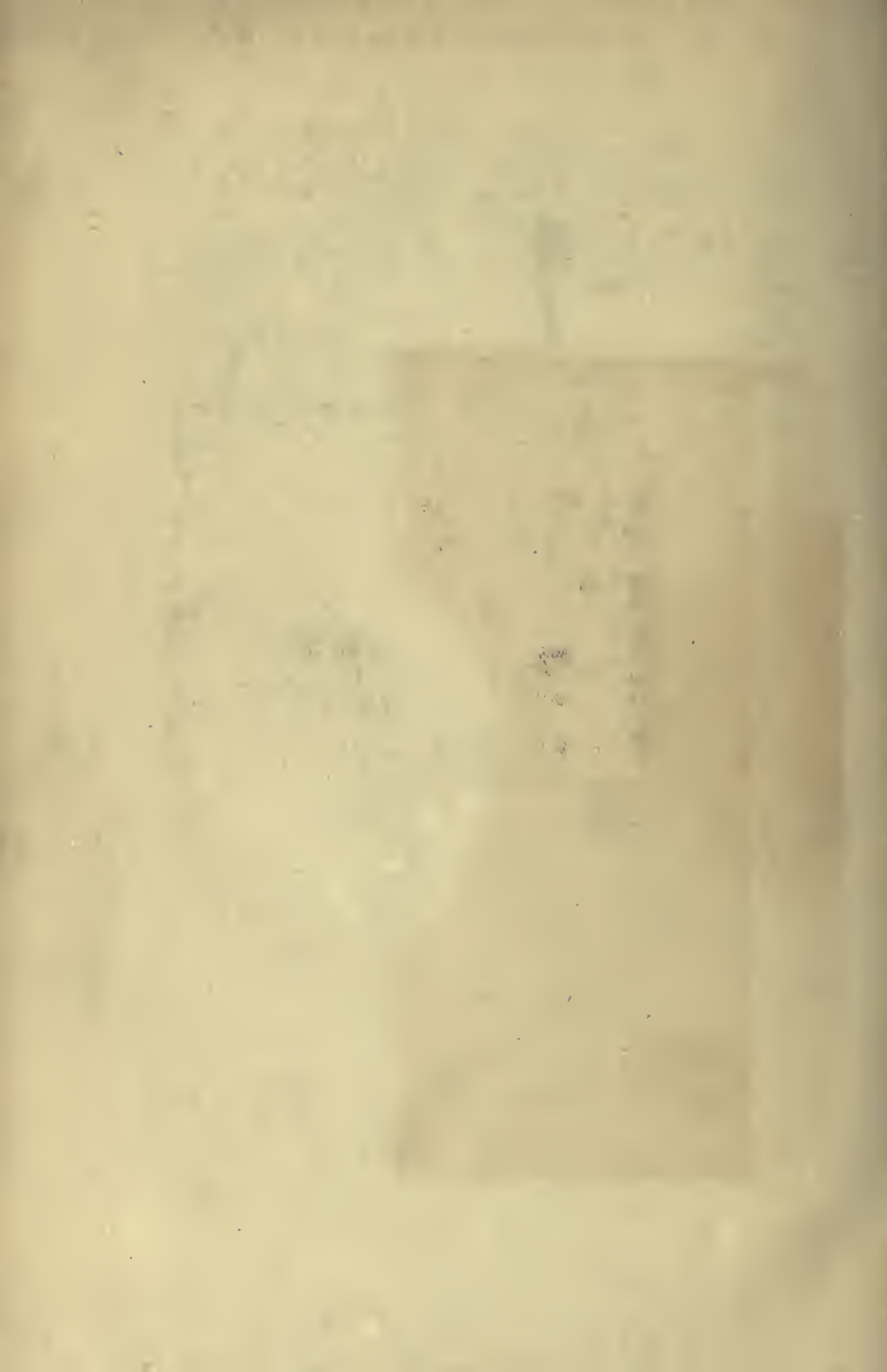
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